

THE CIVIL SERVICE

Vol. 3 (1)

Surveys and Investigations
Social Survey of the
Civil Service

**Evidence submitted to the Committee under
the Chairmanship of Lord Fulton
1966-1968**



Members of the Committee

LORD FULTON (Chairman)

SIR NORMAN KIPPING, G.C.M.G., K.B.E., J.P. (Vice-Chairman)

SIR PHILIP ALLEN, K.C.B.

MR. W. C. ANDERSON, C.B.E.

RT. HON. SIR EDWARD BOYLE, Bart., M.P.

SIR WILLIAM COOK, C.B., F.R.S.

SIR JAMES DUNNETT, K.C.B., C.M.G.

DR. NORMAN HUNT

MR. R. R. NEILD

MR. R. SHELDON, M.P.¹

PROFESSOR LORD SIMEY

SIR JOHN WALL, O.B.E.

¹ Mr. Sheldon succeeded Mrs. Shirley Williams, M.P., on her appointment as Parliamentary Secretary, Ministry of Labour in April, 1966.

Preface

This volume, which is the last to be published in the series of evidence presented to the Committee on the Civil Service, consists of one document, the "Social Survey of the Civil Service". It has been written by Dr. A. H. Halsey, Head of the Department of Social and Administrative Studies at the University of Oxford, and Mr. I. M. Crewe, Assistant Lecturer in Politics at the University of Lancaster.

The Committee commissioned this piece of research late in 1966. A major task of investigation and analysis was required, and it became clear as time went on that the final version of the survey could not be ready in time for the Committee to take full account of it in its Report, unless the Report itself were to be delayed well beyond the time at which it would be needed. The Committee therefore decided to go ahead with the presentation of their own Report and to leave the Survey to be published at a later stage. It was partly for this reason that the Committee proposed that there should be an inquiry into the Method II selection procedure which should examine, among other evidence, those aspects of the Survey which related to recruitment to the Administrative Class.

Acknowledgments

We should like to thank the many people who have helped us to prepare this Report. Professor R. K. Kelsall (University of Sheffield), Lord Simey, Dr. N. C. Hunt and others took part in the initial planning discussions. So did Mr. Louis Moss and his colleagues at the Government Social Survey who subsequently also undertook the large tasks of field work and computer processing. Dr. E. G. Woodroffe, Dr. A. T. M. Wilson and Mr. M. Zinkin (Unilever), Lord Heyworth, Professor W. J. M. Mackenzie (University of Glasgow), Sir Peter Runge, Sir Henry Wilson Smith and Professor Asa Briggs (University of Sussex), Treasury Officials and Mrs. J. Parker (University of Oxford) read preliminary drafts and gave us valuable criticisms. So did the Civil Service Commissioners who also supplied data on direct entrants to the Service. We were assisted throughout by the Secretary of the Committee on the Civil Service (Mr. R. W. L. Wilding) and his staff: in particular, by Miss B. J. Fearn and Mrs. E. J. Baker who carried a heavy load of typing and Mr. J. A. Lewry who saw the Report through the press.

Our greatest debt is to Dr. N. C. Hunt, who helped us at every stage and especially in the drafting of its final version with detailed editorial assistance.

A. H. HALSEY

I. M. CREWE

MEMORANDUM

Submitted by

A. H. HALSEY and I. M. CREWE

(*University of Oxford*) (*University of Lancaster*)

Social Survey of the Civil Service

CONTENTS

	<i>Page</i>
INTRODUCTION	1
CHAPTER I Structure of the Civil Service	3
CHAPTER II The Social and Educational Background of Civil Servants	15
CHAPTER III The Administrative Class	34
CHAPTER IV The Executive Class	112
CHAPTER V The Clerical Class	144
CHAPTER VI The Legal Class	174
CHAPTER VII The Works Group of Professional Classes: Architects and Surveyors, and Engineers	201
CHAPTER VIII The Technical Works Class	253
CHAPTER IX The Draughtsman Classes	274
CHAPTER X The Scientific Officer Class	302
CHAPTER XI The Experimental Officer Class	342
CHAPTER XII The Scientific Assistant Class	372
CHAPTER XIII Summary	397
ANNEX I The Sample Survey	420
ANNEX II Statistical Significance	441

Introduction

We were asked by the Fulton Committee in November, 1966 to undertake a social survey of the Civil Service. The Committee had in mind that such a survey might provide a sociological portrait of this group of professions and occupations and might serve to integrate other enquiries submitted to the Committee into particular aspects of recruitment to the Civil Service.¹

Time was short. Results were required by the end of 1967 if they were to be of serious value to the Committee before it formulated its report. For this reason alone it was clear that only the questionnaire survey method was practical, that there could be no pilot enquiry and that only questions of an ascetically factual kind could be asked if the study was not to be delayed by diplomatic negotiations with the interested staff associations and the Committee itself. The study of opinions and attitudes to work in the Civil Service was obviously impractical without piloting and the use of the interview method. Enquiry into such matters as political allegiance, religious affiliation, attitudes to career and promotion opportunities were ruled out as too delicate and difficult even if there had been time to undertake them by valid and reliable techniques. What follows is therefore scarcely a portrait of the Civil Service professions but rather the barest skeleton on which further investigation could (and should) be based. We could not, in any case, have produced this survey at all had not Dr. N. C. Hunt (a member of the Committee), Professor Kelsall and, above all, Mr. Louis Moss and his colleagues in the Government Social Survey given generously of their time. And we were lucky; the civil servants responded promptly to give us a 97% response rate and the computer exceptionally and mercifully, did not break down.

Nor, as the reader will quickly see, have we been able to exploit the collected material fully in the time available to us. We have attempted nothing but the most straightforward analysis of simple distributions leaving much to be explored by more sophisticated techniques at our academic leisure.

The plan of this survey is correspondingly simple. In Chapter I we describe briefly the structure of those classes in the Home Civil Service covered by our investigation giving details of the number and type of sample groups into which we have divided them. We also set out their pay ranges and provide a comparative analysis covering the average length of service of individuals in the different classes, the type of department they work in and where geographically their places of work are located. In Chapter II we compare the classes in terms of the personal, social and educational background of the civil servants who compose them. Each chapter from III to XII deals separately with one of the classes for which we have survey information adding relevant comparative information from similar professions outside the Civil Service and from foreign Civil Services where we have been able to find it. We also indicate any significant trends in

¹ C. H. Dodd "Recruitment to the Administrative Class 1960-64" *Public Administration* XLV (Spring 1967) pp. 55-80.

J. F. Pickering "Recruitment to the Administrative Class 1960-64" *Public Administration* XLV (Summer 1967) pp. 169-199.

the developing social composition of each class. In Chapter XIII we attempt an interpretation of the major themes of our study and in Annexes I and II we give details of the questionnaire, sampling design, response rates and weighting procedures and a note on the statistical significance of the tables and the more important statements in the text.¹

¹ We are indebted to Dr. Knott of the London School of Economics for his labour in scrutinising the survey findings for statistical significance.

Chapter I

Structure of the Civil Service

Civil servants are "servants of the Crown, other than holders of political or judicial offices, who are employed in a civil capacity and whose remuneration is paid wholly and directly out of monies voted by Parliament."¹ This Survey, like the report of the Fulton Committee itself omits industrial staff. The distribution between "staff groups" of non-industrial staff is set out in Table 1.1. Apart from the Post Office staff which the Fulton Committee excluded from its inquiry, the main groups omitted by our survey are the clerical assistants and typists (15.2%) and the ancillary, technical and miscellaneous supervisory grades (7.4%). The survey also excludes:

(a) temporary staff,² who make up slightly less than a quarter of all non-industrial civil servants. Not enough information about them was held centrally to permit their inclusion in the time available; and

(b) members of departmental classes, i.e. those classes over 1,400 whose members are employed in one department only, again for reasons of time. Even with these omissions it was still not possible in the time available to cover all the different classes into which these various groups (shown in Table 1.1) are divided. There are, for example, 47 general classes whose members work in most government departments. We had to limit our survey to the ten listed below. For finer analysis we have divided some of these classes into "upper" and "lower" grades.

1. The Administrative Class

(a) Upper Administrative Grades:

This group includes permanent secretaries of whom there were twenty-eight in April, 1967 and who are normally the official heads of department responsible to the Minister for all departmental activity; deputy secretaries of whom there were seventy-two in April, 1967; under secretaries (270) and assistant secretaries (798).

(b) Lower Administrative Grades:

This group includes principals (1,001) and the training grade of assistant principal (255).

¹ *Royal Commission on the Civil Service 1929-31* (Tomlin Commission) H.M.S.O. Cmd. 3909.

² The terms "permanent" and "established" and the terms "temporary" and "unestablished" are used interchangeably in the survey, as for all practical purposes the division between permanent and temporary staff reflect the same differences between established and unestablished members. Both established and unestablished members have substantially similar conditions of service (salaries, holidays, opportunities for promotion) but most temporary staff have no pension entitlement (until established) and somewhat less security of tenure than their permanent colleagues. Nearly all who spend their whole careers in the Civil Service are established.

Table 1.1: *Home Civil Service non-industrial staff groups, 1967*

Staff Group	Permanent*	Temporary†	Total	% of whole
Administrative	2,508	173	2,681	0.4
Executive (general and departmental)	81,807	2,963	84,770	11.6
Clerical officers (general and departmental)	112,358	21,640	133,998	18.3
Clerical assistants	34,449	47,252	81,701	11.2
Typing	10,754	18,544	29,298	4.0
Inspectorate	2,741	85	2,826	0.4
Messengerial	19,067	15,028	34,095	4.7
Post Office minor and manipulative	182,457	43,263	225,725	30.9
Professional, scientific and technical I	19,810	5,755	25,565	3.5
Scientific and technical II	39,928	15,961	55,889	7.6
Ancillary, technical and miscellaneous, supervisory grades, etc.	36,720	17,041	53,761	7.4
Total	542,599	187,705	730,309	100.0

* Central Staff Record figures.

† From departmental returns.

Notes:

Diplomatic Service staff at home and abroad (5,280 permanent and 1,338 temporary) and Post Office engineering, etc., staff formerly classified as industrial (92,563 permanent and 23,129 temporary) are excluded from the above figures. Home Departments' staff serving abroad are included, but not locally engaged staff. Part-timers totalling 45,048 have been counted as half.

2. The General Executive Class¹

(a) Upper Executive Grades: including heads of major executive establishments (33), principal executive officers (119) and senior chief executive officers (321).

(b) Middle Executive Grades: including chief executive officers (1,299) and senior executive officers (3,673).

(c) Lower Executive Grades: including higher executive officers (11,559) and executive officers (30,781).

3. The General Clerical Class¹

This includes 1,765 higher clerical officers and 78,167 clerical officers. It excludes clerical assistants, as they are members of a separate class.

¹ Departmental Executive and Clerical Classes were omitted. Groups (2) and (3) will henceforth be called the Executive and Clerical Class.

4. The Legal Class

(a) Upper Legal Grades: including two individually graded top posts, higher directing staff (20), deputy heads (7), principal assistant solicitors (29) and assistant solicitors (151).

(b) Lower Legal Grades: including senior legal assistants (383) and legal assistants (124).

5. The Works Group of Professional Classes:

Architects and Surveyors, and Engineers

(often called the Professional Works Group)

This covers a wide range of professions dealing with buildings, land and engineering work of all kinds. We have distinguished between engineers on the one hand, and, on the other, architects and associated professions (surveyors, land officers, etc.)¹. Thus we have divided the Works Group into:

- (a) Upper Architects and Surveyors: including the top posts, the directing grades and the superintending grades.
- (b) Lower Architects and Surveyors: including the senior grades, the main grade and the basic grade.
- (c) Upper Engineers: (as for architects and surveyors).
- (d) Lower Engineers: (as for architects and surveyors).

6. The Technical Works Engineering and Allied Classes²

These are made up of a number of grades intermediate between industrial grades employed on actual production and the professional staff (Group 5) who are responsible for design, research, development and planning. Most of the Technical Works Class is concerned with translating architectural and engineering drawings into actual production and operation. It numbered 14,248 in April, 1967.

7. The Draughtsman Classes

These are drawn from two series of linked departmental classes. The first are the Architectural and Engineering Draughtsmen Classes (6,266). The second are the Cartographic and Recording Draughtsmen and Surveyor Classes (3,638). The drawing office assistant grade is omitted from the first series; the cartographic assistant grade from the second.

8. The Scientific Officer Class

This is the senior of three scientific classes. We divided it into two groups:

- (a) Upper Scientific Officer Grades: including some individually graded top posts (24), chief scientific officers (55), deputy chief scientific officers (157) and senior principal scientific officers (549).
- (b) Lower Scientific Officer Grades: including principal scientific officers (1,464), senior scientific officers (856) and scientific officers (226).

¹ From this point abbreviated to architects and surveyors.

² From this point abbreviated to the Technical Works Class.

9. The Experimental Officer Class

This class works under general guidance of the scientific officer class. We have divided it into two groups:

- (a) Upper Experimental Officer Grades: including chief experimental officers (234) and senior experimental officers (1,673).
- (b) Lower Experimental Officer Grades: including experimental officers (3,521) and assistant experimental officers (1,031).

10. The Scientific Assistant Class

This is the third of the scientific classes. It supplements the experimental officer class in detailed work. There were 1,083 senior scientific assistants and 1,728 scientific assistants in April, 1967.

Thus the survey covered ten of the main classes in the Civil Service, and we divided most of these into upper and lower grades¹ to form nineteen sample categories. Where the numbers were sufficient we have further divided these sample categories into men and women. Thus the total number of sample groups becomes twenty-six for which data and analysis appear in Chapters III to XII. Annex I sets out the number and sampling fraction that each constitutes.

Sex

The distribution of the sexes (Table 1.2) between the sampled Civil Service classes shows that women are concentrated in the clerical classes; there they are only just outnumbered by men. In all but three of the other nineteen sample categories, however, they form a small minority of less than 10%. They form 21% of the lower executive class,² and 11% of the lower administrative class. In general, they are concentrated in the lower grades of each of the classes.

Recruitment

Recruitment to posts is basically through open competition using interviews and written examinations, and through internal promotion. The details vary from class to class and these are discussed in the later chapters dealing with particular classes. Meanwhile it may be noted that transfer and promotion³ between classes is most common in the subordinate and intermediate classes⁴ and into their lower grades.

¹ Grades differentiate responsibility and salary ranges within a class.

² The sample groups comprising a sample category, e.g. upper administrative, are sometimes collectively termed "upper administrative class" or "upper grades of the administrative class" in the text.

³ The precise definition of a class to class transfer or promotion varies for each class and is given in the appropriate chapter.

⁴ From this point the Survey will refer to higher classes (the administrative, legal and scientific officer classes and the works group of professional classes) intermediate classes (the executive and experimental officer classes) the subordinate classes (the technical works, draughtsman, clerical and scientific assistant classes). This threefold categorisation roughly distinguishes the classes in terms of authority, responsibility, salary ranges and educational requirements.

Table 1.2: Civil Service sample categories: sex¹

Sex	Upper Administrative	Lower Administrative	Upper Executive	Middle Executive	Lower Executive	Clerical	Upper Legal	Lower Legal	Upper Works (Arch.)	Lower Works (Arch.)	Upper Works (Eng.)	Lower Works (Eng.)	Technical Works	Draughtsman	Upper Scientific Officer	Lower Scientific Officer	Upper Experimental Officer	Lower Experimental Officer	Scientific Assistant
Male	95	89	98	90	79	56	99	91	98	99	100	100	100	95	99	98	97	91	83
Female	5	11	2	10	21	44	1	9	2	1	—	—	—	5	1	2	3	9	17
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(1,089)	(1,123)	(426)	(4,368)	(37,364)	(62,566)	(182)	(551)	(168)	(1,908)	(165)	(1,575)	(12,635)	(7,340)	(769)	(2,452)	(1,767)	(4,564)	(2,813)

¹ Figures refer to permanent staff only in November, 1966 and were provided by the Treasury (Central Staff Record). A slight discrepancy between the total number attributed to the sample categories here and on pages 3-6, occurs because of the different dates at which the data was collected. —, as in all tables in this Appendix, denotes less than 0.5%.

Service

The salary ranges of our various sample categories are shown in Table 1.3. Table 1.4 indicates whether initial appointment to the service was on a permanent or temporary basis. Table 1.5 is an analysis based on years of establishment in the Service. Tables 1.6 and 1.7 analyse the geographic location of employment of various groups and types of department in which they serve.

The salary ranges of our sample groups (Table 1.3) run from well below the average earnings of manual workers in manufacturing industry in the case of young members of the draughtsman, clerical and scientific assistant classes to salaries comparable with the highest reaches of professional and managerial work among the administrative, legal and scientific officer classes and the professional works group.

Table 1.3: Civil Service sample categories: Salary ranges at 1.1.67

Sample Category ¹	Salary range (national rates)
Upper Administrative	£3,500–£9,200
Lower Administrative	£926 –£3,107
Upper Executive	£3,156–£5,250
Middle Executive	£1,977–£2,999
Lower Executive	£568 ⁴ –£1,874
Clerical	£351 ³ –£1,457
Upper Legal	£3,550–£8,600
Lower Legal	£1,554–£3,500
Upper Works Group (Architects, Surveyors and Engineers)	£3,500–£7,450
Lower Works Group (Architects, Surveyors and Engineers)	£1,672–£3,105
Technical Works	£668 –£3,050
Draughtsman ²	£365 ³ –£2,277
Upper Scientific Officer	£3,500–£9,500
Lower Scientific Officer	£926 –£3,107
Upper Experimental Officer	£1,977–£2,999
Lower Experimental Officer	£568 ⁴ –£1,734
Scientific Assistant	£396 ³ –£1,359

¹ The sample categories are not separated into sample groups (male and female) because salary scales are the same for both sexes.

² For the Architectural and Engineering Draughtsman Class the range is £766–£2,277 and for the Cartographic and Recording Draughtsman Class £365 (at 16)–£2,041. Drawing Office Assistant and Cartographic Assistant grades are excluded.

³ At 16.

⁴ At 18.

A very much larger proportion of the desk class¹ initially enter the service on a permanent basis than is the case with the scientific and technical classes. Thus for example a large proportion of the administrative class were permanent on entry into the Civil Service compared with a small proportion of the scientific officer class and the professional works group. There is a similar pattern in the comparison between the initial entry into the executive class and their counterparts in the experimental officer and technical works classes. And a much larger proportion of the clerical class have initially entered the service on a permanent basis than of the draughtsman and scientific assistant classes. The comparisons between the ten classes included in the survey appear in Table 1.4. More detailed figures which appear in Chapters III to XII indicate that women tend to enter initially on a temporary basis more often than men throughout the classes.

Table 1.5 compares the classes in terms of length of service after establishment to the Civil Service. Two distinct patterns emerge from the figures. Members of desk classes have served longer in an established capacity on average than their colleagues in technical and scientific classes of a similar higher, intermediate or subordinate status. The typical (median) member of the administrative class was established in the 1940's; the typical member of the other higher classes in the 1950's. However, it should be emphasised that the figures reflect the particularly infrequent or short period of temporary service typical for present members of the administrative class (Table 1.4) rather than any marked seniority of service. There is a similar qualification to be made to the second pattern which emerges—the apparent positive correlation between short service and relatively low responsibility of a class. Thus over two-fifths of the clerical and scientific assistant classes were *established* (i.e. became permanent) only in 1960 or later. But again it has to be emphasised that the relatively lengthy period of temporary employment common to members of subordinate classes before establishment exaggerates this correlation between short service and low responsibility. The more detailed tables set out in Chapters III to XII suggest that it is common to the whole Civil Service for women to be more recently established on average than men.

Within a general pattern of metropolitan concentration the geographical distribution of civil servants (Table 1.6) is roughly that London draws high: rather than subordinate classes, the desk rather than technical or scientific classes, (and women as against men). The administrative and legal classes are almost entirely employed in inner London with a minority in Edinburgh. Most of the scientific staff work in the South or Midlands, more detailed figures indicating that relatively higher proportions of those in the upper grades, and of women, work in London. Posts for technical staff are located more in London, but the majority still work in the South and Midlands. Only the executive and clerical classes are more evenly distributed over the regions of the country, over a third of the clerical class working in Scotland and Northern England.

¹ Classes have been divided according to their broad function into

- (i) desk classes (the administrative, executive and clerical classes)
- (ii) scientific classes (the scientific officer, experimental officer and scientific assistant classes)
- (iii) technical classes (the works group of professional classes, technical works and draughtsman classes)
- (iv) the legal class.

The term "desk" is used as a convenient reference and not as a distinctive description of the administrative, executive and clerical classes. No congratulatory or derogatory overtone is intended.

Table 1.4: Civil Service classes: Initial tenure on appointment

Initial tenure	Administrative Class	Upper and Middle Executive Class	Lower Executive Class	Clerical Class	Legal Class	Professional Works Group	Technical Works Class	Draftsman Class	Scientific Officer Class	Experimental Officer Class	Scientific Assistant Class
	%	%	%	%	%	%	%	%	%	%	%
Permanent ⁴	79	78	49	32	55	27	7	16	34	17	7
Temporary	21	22	50	66	44	73	93	84	65	82	93
No Answer	1	—	1	3	2	—	—	—	1	—	1
Total ¹	100	100	100	100	100	100	100	100	100	100	100
(N)	(571)	(604)	(417)	(366)	(351)	(666)	(206)	(196)	(403)	(590)	(352)
Base figure for weighting ³	(2,157)	(4,844)	(37,220)	(52,338)	(602)	(3,164)	(206) ²	(196) ²	(2,933)	(5,891)	(2,372)

¹ Totals might add up to between 99 and 101, as in all other tables in this appendix, because of rounding.

² No weighting necessary because only one sample group was drawn from the class.

³ For details of the weighting procedure, see Annex I. The base figures remain the same throughout the Appendix (except where figures refer only to graduate members of a whole class) and will not be repeated.

⁴ Includes "probationary" but established first years.

Table 1.5: Civil Service classes: Year of permanent establishment to the Civil Service

Year of establishment	Administrative Class	Upper and Middle Executive Class	Lower Executive Class	Clerical Class	Legal Class	Professional Works Group	Technical Works Class	Draughtsman Class	Scientific Officer Class	Experimental Officer Class	Scientific Assistant Class
	%	%	%	%	%	%	%	%	%	%	%
1920-29	3	11	2	1	1	—	1	—	2	—	—
1930-39	32	65	20	4	14	13	2	5	9	3	1
1940-49 ¹	29	21	46	26	30	37	41	31	37	39	25
1950-59	18	3	17	28	30	33	29	44	25	34	33
1960-66	19	—	15	41	25	18	28	20	26	25	41
Total	100	100	100	100	100	100	100	100	100	100	100
(N)	(571)	(604)	(417)	(366)	(351)	(666)	(206)	(196)	(403)	(590)	(352)

¹ Virtually no staff were established during the war.

Table 1.6: Civil Service classes: Location

Location	Administra- tive Class	Upper and Middle Executive Class	Lower Executive Class	Clerical Class	Legal Class	Professional Works Group	Technical Works Class	Draughtsman Class	Scientific Officer Class	Experimental Officer Class	Scientific Assistant Class
	%	%	%	%	%	%	%	%	%	%	%
Inner London ¹	87	62	40	23	78	39	13	8	17	10	5
Outer London ²	—	7	10	10	1	9	9	19	15	15	7
North ³	1	9	17	26	1	9	13	7	3	5	5
Rest of England and Wales ⁴	4	17	26	31	5	32	56	62	60	64	77
Scotland	7	6	8	9	15	11	9	5	5	6	6
Total	100	100	100	100	100	100	100	100	100	100	100
(N)	(571)	(604)	(417)	(366)	(351)	(666)	(206)	(196)	(403)	(590)	(352)

¹ Within a 4 miles radius of Charing Cross.² Between 4 and 16 miles from Charing Cross.³ The Northern, North Western and Yorkshire and Humberside standard regions, i.e.⁴ The very small number of staff located in Northern Ireland are included in this category.

Northumberland, County Durham, Yorkshire, Cumberland, Westmorland, Lancashire, High Peak (Derbyshire) and parts of Lindsey (Lincolnshire).

Table 1.7: Civil Service classes: Departmental distribution

Type of department	Administrative Class	Upper and Middle Executive Class	Lower Executive Class	Clerical Class	Legal Class	Professional Works Group	Technical Works Class	Draughtsman Class	Scientific Officer Class	Experimental Officer Class	Scientific Assistant Class
	%	%	%	%	%	%	%	%	%	%	%
Economic ¹	27	23	20	13	23	8	1	2	7	3	14
Technical ²	22	30	24	33	—	73	96	63	86	92	80
Social ³	24	34	44	44	14	10	1	1	1	1	—
Other ⁴	27	14	12	10	63	8	1	34	6	4	6
Total	100	100	100	100	100	100	100	100	100	100	100
(N)	(571)	(604)	(417)	(366)	(351)	(666)	(206)	(196)	(403)	(590)	(352)

¹ The Treasury, Board of Trade, Department of Economic Affairs, Inland Revenue, Customs and Excise, Export Credits Guarantee Department, Ministry of Agriculture, Fisheries and Food, Ministry of Land and Natural Resources.

² The Ministries of Aviation, Defence, Technology, Transport, Public Building and Works, and Power.

³ The Ministries of Social Security, Health, Housing and Local Government, the Home Office and the Department of Education and Science.

⁴ The Scottish and Welsh offices and departments, the Ministry of Labour, the legal departments (Treasury Solicitor, Land Registry, Public Prosecutions), the Ordnance Survey, and a number of other smaller departments.

Three main types of department may be distinguished according to their general sphere of concern—the economic, social and technical, leaving a fourth residual category¹.

The scientific and technical classes are concentrated in the technical departments and the desk classes are more evenly distributed. Further data not included in Table 1.7 show that women in the administrative class are more commonly in the social and economic rather than the technical departments, but otherwise there are no marked differences in the pattern between the sexes and grades within a class.

¹ See footnote to Table 1.7 for details of the classification.

Chapter II

The Social and Educational Background of Civil Servants

Our survey enables us to compare the classes in respect of:

- (i) demographic composition—age and marital status
- (ii) social origins
- (iii) educational background and qualifications
- (iv) occupational experience before and after joining the Civil Service
- (v) professional and leisure activities.

(i) *Demographic composition*

The age structure of the classes is set out in Table 2.1. Age and rank, of course, tend to go together; people get promoted as they get older. Thus, as material presented in the following chapters shows, none of the classes subdivided by grade have members under thirty in the upper sample categories. The typical (median) member of the upper grades of the administrative class is fifty, in the legal class slightly older, and in the executive class in his early to mid-fifties. But the oldest sample category is that of the upper professional works group (the engineers especially) whose typical member is over fifty-five. In general the technical classes are older than the scientific and desk classes of equivalent authority. The legal and technical works class, and the professional works group contain virtually no one under thirty even in their lower grades, and they have the highest percentages of both upper and lower grade members over fifty.

Only the scientific assistant class stands out as particularly youthful, with over a third under thirty and less than a fifth over fifty. The clerical class is notable from a different point of view as the class with the most elongated age structure, containing high proportions under thirty (especially women) and over fifty (especially men). Where we have sampled both sexes within a sample category our findings are that women tend to be younger than men, as is amply documented in Chapters III to V and XI to XII.

Making allowance for age, there seems to be nothing remarkable about the marriage rate (i.e. proportion ever married) among male civil servants, and data on marital status is therefore reserved for Chapters III to XII. However, a short summary of major differences between the classes and their component sample categories and sample groups is needed at this stage. Bachelors over twenty-six, which is the typical (median) age at marriage for males nationally, are a minority of less than 10% in the Civil Service. The proportion of bachelors rises significantly only among those sample groups known to be particularly young, notably the male clerical and scientific assistant sample groups (23% and 25% respectively). On the other hand, differences of marital status between men and women in the same sample category are always insignificant. Spinsters form two-thirds of most female sample groups and are always in the majority.

Table 2.1: Civil Service classes: Age

Age	Administrative Class	Upper and Middle Executive Class	Lower Executive Class	Clerical Class	Legal Class	Professional Works Group	Technical Works Class	Draughtsman Class	Scientific Officer Class	Experimental Officer Class	Scientific Assistant Class
	%	%	%	%	%	%	%	%	%	%	%
17-20	—	—	1	8	—	—	—	3	—	—	2
21-25	3	—	9	20	1	—	—	4	—	6	17
26-30	7	—	5	5	—	1	3	7	9	9	14
31-35	8	—	4	2	7	3	7	10	14	15	13
36-40	12	3	12	3	18	7	7	18	16	17	12
41-45	12	11	17	9	13	15	13	15	20	17	12
46-50	22	42	21	13	18	17	11	18	12	15	11
51-55	20	27	17	11	20	24	22	14	15	12	6
56-60	12	13	11	16	16	21	21	8	10	5	6
61-65	3	4	2	11	5	11	16	3	5	3	5
Over 65	—	—	—	2	2	—	1	1	—	1	1
Total	100	100	100	100	100	100	100	100	100	100	100
(N)	(571)	(604)	(417)	(366)	(351)	(666)	(206)	(196)	(403)	(590)	(352)

This may be explained by comparative youth in the case of women clerical and scientific assistants. But for the female sample groups with a higher average age it is clear that there is a strong association of career and spinsterhood. Thus nearly two-thirds of the women in the upper administrative class are single compared with hardly more than 10% of their male colleagues.

(ii) *Social origins*

The geographical division between the North and South of the United Kingdom¹ is also known to be a social division denoting greater prosperity and wider opportunities in the latter. We shall consider the question of geographical representativeness in the following chapters dealing with particular classes. Meantime, the distribution of place of birth among our classes is shown in Table 2.2 without comparisons against the general population.

There is a general tendency for civil servants to come from the South and Midlands. This is least pronounced for the clerical class (44%) and most evident for the intermediate and subordinate scientific and technical classes. In this comparison the administrative class and the upper and middle executives occupy a middle position; 55% of the administrative class and 62% of the upper and middle executives were born in the South and the Midlands. It is further noticeable that London and the South East contribute most of those born in the South and Midlands among the higher classes (especially the administrative class), but a minority of those born in the same region among technical works, draughtsmen and scientific assistant classes. The general predominance of civil servants born in the South and Midlands reflects the concentration of Civil Service posts in this area (Table 1.6) and perhaps a national tradition of administration in the South and manufacture and industry in the North. The differing degrees of local recruitment for each class, that is, of people born in the region in which they work, are shown in Chapters III to XII.

The social class origins of civil servants as judged by paternal occupation, though wide, are dominantly middle class. The Registrar General's distribution of the working population between five social classes shows that social classes I and II (popularly referred to as the middle classes and covering higher and intermediate professional, managerial and administrative workers) make up 20% of the general population, while at the other end of the scale, social class V—unskilled workers make up 12%. Among the Civil Service classes (Table 2.3) the nearest approach to the distribution of the general population is that of the technical works class where the comparable figures for parental occupation are 24% from social classes I and II, and 4% from social class V, with 55% the sons of skilled manual workers. Among the intermediate classes the proportion of fathers who hold or held jobs in social classes I and II rises to about a third, and to between 54% and 81% for the higher classes. It should be noted that of the higher civil service classes, the legal class is the most middle class in background—81% with fathers whose occupation is or was in social class I or II. The administrative class comes next with a comparable figure of 67%, the scientific officer class next with 54%; and the professional works group with 50%.

¹ Precise definitions of the geographical regions mentioned in this paragraph are given in Table 2.2.

Table 2.2: Civil Service classes: Place of birth

Place of birth	Administra- tive Class	Upper and Middle Executive Class	Lower Executive Class	Clerical Class	Legal Class	Professional Works Group	Technical Works Class	Draughtsman Class	Scientific Officer Class	Experimental Officer Class	Scientific Assistant Class
	%	%	%	%	%	%	%	%	%	%	%
North ¹	24	22	27	35	18	21	19	19	28	21	19
London and South East ²	41	39	34	26	32	38	26	27	26	33	20
Rest of South and Midlands	14	23	16	18	21	18	36	40	23	31	37
Wales, Scotland and N. Ireland	13	14	20	18	17	18	14	8	19	11	22
Abroad ³	8	2	3	3	12	5	4	5	4	4	3
Total	100	100	100	100	100	100	100	100	100	100	100
(N)	(571)	(604)	(417)	(356)	(351)	(666)	(206)	(196)	(403)	(590)	(352)

¹ The standard regions of Northern, Yorkshire and Humberside, North West and North Midlands, i.e., the counties listed in footnote 3 of Table 1.6 with the additions of Derbyshire, Lincolnshire, Leicestershire, Northamptonshire, Nottinghamshire and Rutland.

² London, Bedfordshire, Essex, Hertfordshire, Kent, Middlesex, Surrey and Sussex.

³ Including Eire.

Table 2.3: Civil Service classes: Social class origins (father's occupation)

Father's occupation ¹	Administra- tive Class	Upper and Middle Executive Class	Lower Executive Class	Clerical Class	Legal Class	Professional Works Group	Technical Works Class	Draughts- man Class	Scientific Officer Class	Experimental Officer Class	Scientific Assistant Class
	%	%	%	%	%	%	%	%	%	%	%
I Higher profess- ional and managerial	21	6	5	3	36	16	5	2	15	8	5
II Intermediate professional and managerial	46	30	26	20	45	44	19	23	39	28	28
III (i) Skilled non- manual	10	15	16	11	7	9	6	10	12	15	12
III (ii) Skilled manual	13	28	37	37	9	24	55	51	27	37	39
IV Semi skilled	4	14	13	17	2	5	8	7	6	7	10
V Unskilled	2	4	1	5	—	1	4	2	1	1	2
Other	5	4	3	8	2	2	3	4	—	4	4
Total	100	100	100	100	100	100	100	100	100	100	100
(N)	(571)	(604)	(417)	(366)	(351)	(666)	(206)	(196)	(403)	(590)	(352)

¹ The Registrar General's classification of occupations has been followed. Class I includes all large employers, and "higher" administrative, managerial and professional workers, e.g., lawyers, doctors, ministers of religion, authors, journalists, officers in the armed forces, professional scientists and engineers. To Class II are allocated farmers, shopkeepers, small employers and intermediate administrative, professional and managerial workers, e.g., teachers, nurses, artists, junior managers. Class III (i) consists of clerical workers, shop assistants, foremen and supervisors, and Class III (ii) of manual workers who have acquired a skill by an apprenticeship or other formal means. The semi skilled workers who make up Class IV include agricultural labourers; Class V refers to labourers attached to any occupation and to casual workers. The class of any particular occupation can be found in the Registrar General's "Classification of Occupations", H.M.S.O., 1966.

It is the major occupation of the father (or mother, if the father died in the respondent's youth and the information is available) or the last of a natural progression of jobs, that is recorded.

Data on the separate sample groups, set out in the chapters which follow, indicate that female staff have a greater tendency to come from "superior" social backgrounds than their male colleagues in the same class or sample category. The social class background of any of the female sample groups is usually either similar or "superior" to the male sample group which is immediately placed above in the civil service hierarchy as a class or sample category. There are no marked social distinctions as far as women are concerned between sample categories (i.e. grades) within a class; thus the women in the higher grades of a class are not significantly different in social background from those in the lower grades of the same class. Nor is there any systematic difference between the social class origin of women in the desk classes on the one hand and on the other hand those in the scientific or technical classes of equivalent standing.

There is evidence of a slight tendency for civil servants to follow in their father's footsteps though to an extent which, as may be seen from Table 2.4 falls far short of an hereditary occupational group or caste. The administrative class has the highest proportion (21%) whose fathers were also in the Civil Service (though not necessarily the same class) followed by the executive class. The hereditary tendency is weakest among the subordinate classes and the technical and scientific classes.

(iii) *Educational background and qualifications*

The educational background of civil servants reflects, not surprisingly, the primacy of certain minimum educational qualifications for entry into the various classes. The highest qualifications obtained both before and after the joining of the Civil Service are set out in Table 2.5.

The scientific officer class is the best educated in terms of paper qualifications. 85% were graduates on entering the Civil Service and nearly a quarter received a degree (mainly at post graduate level) after joining. Two other higher classes—the administrative and legal classes—are also composed mainly of graduates, but far fewer took qualifications whilst working for the Civil Service. Similarly, at the intermediate and subordinate levels of authority and responsibility, staff of the scientific classes are better qualified before joining the Civil Service, and greater proportions have post entry qualifications, than their desk and technical counterparts. Thus, for example, the standard of qualifications possessed by the scientific assistant class roughly equals that of the upper and mid-executive class, and is distinctly superior to that of its lower grades.

The clerical class is the worst qualified: nearly half were completely unqualified on entry, and only 14% have since obtained any certificate. For their level of authority the technical classes¹ tend to be poorly qualified before joining the Civil Service, but include markedly high proportions (always over 40%) with post entry qualifications. A clear pattern of educational qualifications within the classes emerges from figures included in the following chapters but not in Table 2.5. The poorer qualified are disproportionately concentrated in the lower grades of each class, mainly because these grades contain larger numbers of promotees, but sometimes also because of trends in recent recruitment or

¹ See footnote 1 to p. 9 of Chapter I.

Table 2.4: Civil Service classes: Proportion whose fathers were civil servants¹

	Administrative Class	Upper and Middle Executive Class	Lower Executive Class	Clerical Class	Legal Class	Professional Works Group	Technical Works Class	Draughtsman Class	Scientific Officer Class	Experimental Officer Class	Scientific Assistant Class
	% 21	% 17	% 14	% 8	% 13	% 9	% 4	% 13	% 8	% 12	% 10
(N)	(571)	(604)	(417)	(366)	(351)	(666)	(206)	(196)	(403)	(590)	(352)

¹ Staff with fathers in the industrial grades, or whose main job was not in the Civil Service despite a temporary or short term employment as a civil servant are excluded; Crown appointments (Judges etc.) are included.

Table 2.5: Civil Service classes: Highest educational qualification obtained before and after entry into the Civil Service

Highest educational qualification	Administrative Class		Upper and Middle Executive Class		Lower Executive Class	Clerical Class	Legal Class	Professional Works Group	Technical Works Class	Draughtsman Class	Scientific Officer Class	Experimental Officer Class	Scientific Assistant Class
	Before entry	After entry	Before entry	After entry	Before entry	Before entry	After entry	Before entry	After entry	Before entry	After entry	Before entry	After entry
	%	%	%	%	%	%	%	%	%	%	%	%	%
University higher and first degree	71	17	3	3	1	—	—	66	5	18	2	1	—
Membership of a professional institution; University diploma; Dip. Tech.	2	1	1	1	1	2	1	—	3	53	37	5	10
Higher National Certificate (Diploma; Higher School Certificate; Ordinary National Certificate/ Diploma	14	—	20	—	8	—	5	2	—	9	—	12	11
All other qualifications	11	10	60	17	58	15	47	2	6	13	3	52	27
No qualification	2	72	16	76	31	83	47	—	86	7	57	29	52
Total	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(571)	(571)	(604)	(604)	(417)	(417)	(366)	(351)	(666)	(206)	(196)	(590)	(352)

variations in the speed and frequency with which direct entrants with different qualifications reach the upper grades of their class.¹

School leaving is also clearly related to the relative responsibility of the various Civil Service classes (Table 2.6). The higher classes have a normal (median) school leaving age of eighteen, except for the professional works group of whom nearly half left school at fifteen. The present minimum educational qualifications for direct entry into the intermediate classes generally requires a school leaving age of seventeen or eighteen but the age at which the median member left school is, in fact, sixteen because of the substantial proportion of promotees in both classes. The subordinate classes normally left at the statutory school leaving age.

Figures not included in Table 2.6 show that women tend to have had longer schooling than men of the same sample category. The technical classes have had a shorter schooling than members of desk or scientific classes of equivalent authority.

The typical member of most classes comes from a grammar school (Table 2.7). Contributions from the private sector of education (direct grant and all fee paying schools) modify the pattern in the higher classes. However, whereas in the administrative and legal classes half or more members were educated in the private sector, and a substantial proportion were boarders at their schools (24% and 42% respectively), over half the scientific officer class and professional works group attended an L.E.A. grammar or non-selective school and few were boarders. Only among the subordinate clerical, technical works and draughtsman classes are over a third recruited from secondary modern, comprehensive and technical schools (or their past equivalent), with a notable contribution from technical schools to the technical classes. Thus type of schooling adds a further element to the general association between membership of a higher class and a privileged social and educational background.

The administrative, legal and scientific officer classes are mainly graduates, as are also a small minority of the professional works group and experimental officer class (18% in both cases). The proportion of graduates that each class contains is shown in Table 2.8. The main subjects studied by graduate civil servants naturally vary according to their class, and tables providing details are presented in the chapters dealing with particular classes. Briefly, the administrative class is dominated by arts graduates, especially in history and classics; some 30% have read a social science, mainly economics, and a much smaller minority studied a natural or applied science (Table 3.50 shows the actual subject covered by the general categories "arts", "social science", "natural science" and "applied science".) As would be expected, the scientific officer class is no less heavily dominated by natural science graduates, especially in physics, mathematics and chemistry, and also contains a minority who studied some branch of technology. The graduate legal class includes a third who took an *arts* subject—again especially in classics and history—for their 1st university first degree, most of whom studied law at university for a 2nd university first degree.

¹ In later chapters comparisons between those educated before and after 1948 must be interpreted in the light of the fact that the earlier groups got no school certificate without passing in five subjects whereas "O" levels may refer to a smaller number of passes.

A similar caution applies to comparisons of "A" levels with Higher School Certificate.

Table 2.6: Civil Service classes: School-leaving age

School-leaving age	Administrative Class	Upper and Middle Executive Class	Lower Executive Class	Clerical Class	Legal Class	Professional Works Group	Technical Works Class	Draughtsman Class	Scientific Officer Class	Experimental Officer Class	Scientific Assistant Class
	%	%	%	%	%	%	%	%	%	%	%
13 and under	—	1	1	2	—	8	2	1	1	1	1
14	1	13	21	25	2	11	32	13	1	5	11
15	1	5	8	16	2	29	33	29	4	8	14
16	13	35	33	35	13	30	22	32	10	30	29
17	26	32	23	13	31	17	5	17	28	21	25
18	49	13	12	9	45	4	4	6	46	27	15
19 and over ¹	10	2	3	—	5	—	1	3	9	8	5
Total	100	100	100	100	100	100	100	100	100	100	100
(N)	(571)	(604)	(417)	(366)	(351)	(666)	(206)	(196)	(403)	(590)	(352)

¹ The high proportion of staff who claim to have left school at nineteen or later is a result of

- (i) attendance at schools abroad;
- (ii) the possibility that a few respondents gave the age at which they completed their education, not schooling. Obvious cases were dealt with before the percentages were calculated.

Table 2.7: Civil Service classes: Type of full-time school last attended

Type of school	Administrative Class	Upper and Middle Executive Class	Lower Executive Class	Clerical Class	Legal Class	Professional Works Group	Technical Works Class	Draftsman Class	Scientific Officer Class	Experimental Officer Class	Scientific Assistant Class
	%	%	%	%	%	%	%	%	%	%	%
Secondary Modern ¹	1	11	15	34	2	9	35	22	1	7	16
Comprehensive	—	—	1	1	—	—	—	1	—	—	1
Technical ²	1	4	15	12	4	19	28	26	4	13	13
L.E.A. Grammar ³	40	53	49	41	22	33	25	37	57	54	55
Direct Grant ⁴	19	16	9	2	11	13	4	5	15	12	9
Public Schools ⁵	36	11	3	2	54	19	1	1	20	8	2
Other fee-paying ⁶	1	5	5	5	2	4	3	4	1	1	2
School abroad	1	—	2	2	4	2	2	2	2	3	2
Other	1	—	1	1	2	1	2	2	1	1	1
Total	100	100	100	100	100	100	100	100	100	100	100
	%	%	%	%	%	%	%	%	%	%	%
Day School	76	98	97	98	58	89	96	97	88	94	98
Boarding School	24	2	3	2	42	11	4	3	12	6	2
Total	100	100	100	100	100	100	100	100	100	100	100
(N)	(571)	(604)	(417)	(366)	(351)	(666)	(206)	(196)	(403)	(590)	(352)

¹ Elementary, Church, Junior Secondary and Secondary Modern Schools.² Central Intermediate, Higher Grade and Technical Schools.³ L.E.A. Grammar-type, County High, Senior Secondary and Grammar Schools.⁴ Includes private Grammar schools; excludes Direct Grant schools which appear in the Headmasters Conference List e.g. Manchester Grammar School.⁵ Defined as schools appearing in the Headmasters Conference List, whether independent or Direct Grant.⁶ All other fee-paying, independent schools.

Table 2.8: Civil Service classes: Proportion of graduates¹

	Administrative Class	Upper and Middle Executive Class	Lower Executive Class	Clerical Class	Legal Class	Professional Works Group	Technical Works Class	Draughtsman Class	Scientific Officer Class	Experimental Officer Class	Scientific Assistant Class
	% 76	% 6	% 2	% —	% 67	% 18	% 1	% —	% 92	% 18	% —
(N)	(571)	(604)	(417)	(366)	(351)	(666)	(206)	(196)	(403)	(590)	(352)

¹ Defined as a member with a degree at bachelor level, or a Dip. Tech., the possession of a university diploma alone being insufficient. The proportion who obtained their degrees by means other than full-time attendance at a university are given in Chapters III, IV, VI, VII, X and XI.

Most of the graduates in the legal and administrative classes come from Oxford and Cambridge (especially men: a high proportion of women in the administrative class attended London University). In contrast, graduates of the scientific officer and experimental officer classes, and of the professional works group, come predominantly from London University and the "redbricks"—the Welsh and English provincial universities (Table 2.9).

Table 2.9: Graduate members of the Administrative, Legal, Scientific Officer and Experimental Officer Classes, and the Professional Works Group: University attended

University ¹	Administrative Class	Legal Class	Professional Works Group	Scientific Officer Class	Experimental Officer Class
	%	%	%	%	%
Oxford or Cambridge	64	50	15	16	8
London	9	13	25	27	13
Welsh and English provincial	8	10	30	33	46
Scottish	9	17	12	12	12
Irish and foreign ²	1	5	3	2	3
Other ³	10	11	18	10	19
(N) ⁴	(439)	(115)	(167)	(376)	(144)
Base figure ⁵	(1,633)	(397)	(553)	(2,674)	(1,038)

¹ Attended by the graduate for his 1st University first degree.

² Includes Belfast University.

³ i.e., all graduates who did *not* attend a university full-time. Thus, for example, "London" does *not* include London University external degrees which come under the category "Other".

⁴ Totals add up to over 100 because a few members attended more than one university before obtaining their first degree.

⁵ The base figures remain the same for all other tables referring only to graduate members of a whole class, and will not be repeated.

The standard of graduates, as judged by class of degree, is far higher in the administrative and scientific officer classes than in the other three classes with graduate recruitment. Over half the graduate administrative and scientific officer classes have a first or upper second (at least a third have a first), and only a fifth a lower second or below. The proportions are reversed for the other three graduate classes of whom a fifth or less have a first or upper second and over half lower seconds or below (Table 2.10). It is worth noting—and is on the surface surprising—that over half the legal class have a lower second or below—with 39% of them falling into this latter category.

(iv) Occupational experience before joining the Civil Service

Occupational experience outside the Civil Service varies markedly between the classes (Table 2.11). The outstanding contrast is between the administrative

Table 2.10: Graduate members of the Administrative, Legal, Scientific Officer and Experimental Officer Classes, and the Professional Works Group: Class of degree

Class of degree ¹	Administrative Class	Legal Class	Professional Works Group	Scientific Officer Class	Experimental Officer Class
	%	%	%	%	%
First	33	11	12	39	3
Upper second	25	9	6	15	8
Undivided second	24	23	23	25	9
Lower second	8	17	2	9	13
Other ²	11	39	56	12	68
Total	100	100	100	100	100
(N)	(439)	(115)	(167)	(376)	(144)

¹ For the graduate's 1st university first degree.

² Includes thirds, fourths, war degrees without a class, pass degrees and aegrotats.

and upper and middle executive classes on the one hand and the scientific and technical classes on the other. The majority of the former have had no experience of work outside the Civil Service, but in all the other classes most have been employed elsewhere, the majority in industry and commerce. The following chapters make clear however that women are consistently and markedly more likely to have had no other previous employment than men in the same sample category. Of all classes the administrative class has the least experience in industry or commerce; 16% of the class however have left posts as teachers or lecturers before joining the Civil Service. 30% of the professional works group have worked in local government and nearly three quarters of the legal class began in their profession outside the Civil Service.

(v) Professional and leisure activities

There are very few civil servants who do not belong nominally to some sort of club or society (Table 2.12). The majority in all classes are members of a staff or other non-professional association connected with their work, and of clubs and societies devoted to leisure and social activities. Again, there is a contrast between the administrative class, and the scientific officer class and professional works group in that the latter two groups belong in large numbers to professional associations which bring them into contact with people working outside the Civil Service. Very few in the administrative class are members of professional associations connected with their work. Women tend less to be joiners than men except for a predominance in organisations connected with education and training (evening institutes, Workers Educational Association, Guides, St. John's Ambulance, Civil Defence, etc.). Membership of church sponsored and religious organisations varies from 11% to 25% among the

Table 2.11: Civil Service classes: Field of employment before joining the Civil Service

Field of employment	Admin- istrative Class	Upper and Middle Executive Class	Lower Executive Class	Clerical Class	Legal Class	Professional Works Group	Technical Works Class	Draughts- man Class	Scientific Officer Class	Experi- mental Officer Class	Scientific Assistant Class
None ²	% 65	% 58	% 41	% 30	% 12	% 7	% 24	% 37	% 44	% 40	% 48
Industry and Commerce	14	33	47	54	13	53	72	44	35	47	31
Education	10	1	2	1	7	3	1	1	13	4	2
Local Government	3	9	8	4	8	30	4	4	1	2	4
Armed Forces and local uniformed services ³	3	2	10	15	6	6	17	8	2	9	16
Other	10	6	8	17	74	34	10	16	15	14	16
(N) ¹	(571)	(604)	(417)	(366)	(351)	(666)	(206)	(196)	(403)	(590)	(352)

¹ Totals add up to over 100 because some staff were previously employed in more than one field.

² Cases of staff who had previously been in the Colonial Civil Service or who had been seconded to other agencies (e.g. N.A.T.O.) were not counted as employment outside the Civil Service.

³ i.e. Police, Fire, Civil or other Defence Services. Only regular engagements are included. Other local "uninformed" occupations e.g. bus-driving, are excluded.

Table 2.12: Civil Service classes: Nominal and active membership¹ of organisations and voluntary associations

Type of organisation ²	Administrative Class		Upper and Middle Executive Class		Lower Executive Class		Clerical Class		Legal Class		Professional Works Class		Technical Works Class		Draughtsman Class		Scientific Officer Class		Experimental Officer Class		Scientific Assistant Class	
	N	A	N	A	N	A	N	A	N	A	N	A	N	A	N	A	N	A	N	A	N	A
None	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Professional bodies connected with work	7	59	6	52	9	52	17	66	4	55	3	49	14	62	5	49	5	52	5	52	10	62
Other associations connected with work	10	1	7	1	2	—	2	1	53	2	82	8	27	2	16	1	69	14	38	3	12	—
Clubs and societies connected with social and leisure activities	60	15	72	21	63	20	49	17	54	14	60	17	55	14	55	22	65	13	66	17	48	17
Religious and Church connected associations	70	15	74	20	69	20	60	15	73	21	68	19	61	14	75	21	69	18	74	23	66	14
Civic groups	18	11	18	11	17	10	17	7	24	14	25	16	11	6	15	10	12	8	14	10	10	4
All other associations etc. ³	23	4	36	6	19	3	11	4	20	4	25	6	25	4	25	4	25	5	27	7	12	1
(N) ⁴	48	12	33	11	30	13	34	10	53	17	42	15	31	13	32	14	33	12	36	13	31	11
	(571)	(571)	(604)	(604)	(417)	(417)	(366)	(366)	(351)	(666)	(666)	(206)	(206)	(196)	(196)	(403)	(403)	(590)	(590)	(352)	(352)	(352)

N—Nominal members.

A—Active members.

¹ "Active" membership was subjectively defined by respondents who were asked in the questionnaire whether they "helped to run" any of the listed types of organisation, club, etc.

² For specific examples of the organisations covered by each category see Question 18B of the questionnaire, which is reproduced in Annex I.

³ The percentages for this composite category sometimes include a small amount of double counting.

⁴ Totals add up to over 100 because many staff were nominal and active members of more than one type of organisation.

different classes and data not in the table show it to be fairly evenly spread between upper and lower grades, men and women, the desk and the scientific and technical classes. The pattern of active membership is similar to that of nominal membership. There are only small differences between the classes for each type of organisation and a very similar order of popularity among the different kinds of association. Women are consistently less active whatever their class or sample category, and whatever the type of club or association. Activists form a minority of nearly all classes.

The survey asked for information on the reading of the daily and weekly press. The distributions for newspapers are set out in Table 2.13 and for periodicals in Table 2.14. Readers of "serious" daily newspapers (*The Times*, *Guardian* and *Daily Telegraph*) are concentrated in the higher classes. The administrative and legal classes are the most regular readers, in the order *Times*, *Guardian*, *Daily Telegraph*. Among the scientific officer class and professional works group and the intermediate classes the *Daily Telegraph* is the most popular daily followed by *The Times*. The subordinate classes all most frequently read the *Daily Express* with the *Daily Telegraph* second. Thus, all in all, the *Daily Telegraph* is easily the most widely read daily newspaper in the Civil Service. Chapters III to XII show that within Civil Service classes there is little variation of readership except for a marked dropping-off among the lower grades in the reading of *The Times* and a slight increase in the reading of the *Daily Mirror*. Women tend to read fewer newspapers than their male colleagues in the same sample category.

The pattern of readership of Sunday newspapers is similar. *The Observer* is most popular among the administrative and scientific officer classes, followed by the *Sunday Times* and the *Sunday Express*. The other higher and intermediate classes also most frequently read these three newspapers but in a different order of preference, reversed in the case of the professional works group and executive class. The four subordinate classes all read the *Sunday Express* most, with the *People* or the *Sunday Times* following and the *Sunday Mirror* next. Again women in every Civil Service class tend to read Sunday newspapers rather less than their male colleagues and there is a slight tendency for the lower grades within a class to read the "popular" Sunday newspapers more frequently, i.e. the *People*, *News of the World*, *Sunday Mirror*, and *Sunday Citizen*. Comparisons with national readership patterns of daily and Sunday newspapers are made in Chapters III to XII.

Only among the administrative and upper and middle executive classes do over half the members read any of the listed periodicals (Table 2.14). Higher proportions of the desk than scientific or technical classes of similar authority read each of the listed periodicals. The *Economist* or the *Listener*¹ are invariably the most popular journals, the former for the administrative, legal, scientific officer and executive classes and professional works group; the latter for the other classes. But whereas the *Listener* is not read by more than 18 % of any class the *Economist* is read by 68 % of the administrative class (90 % of the male upper grades sample group)² and in the same class two other journals, the *New Statesman* and *New Society* have higher readership.

¹ More detailed information on the separate sample groups in Chapters III—XII make this clear. Separate figures on the *Times Literary Supplement*, *Times Educational Supplement*, and *Listener* were not available for whole classes.

² The free issue of the *Economist* on departmental order lists partly explains this very high figure.

Table 2.13: Civil Service classes: Readership of daily and Sunday newspapers

	Administrative Class	Upper and Middle Executive Class	Lower Executive Class	Clerical Class	Legal Class	Professional Works Group	Technical Works Class	Draughtsman Class	Scientific Officer Class	Experimental Officer Class	Scientific Assistant Class
	%	%	%	%	%	%	%	%	%	%	%
Daily newspaper ¹											
Times	88	22	8	4	64	13	5	5	23	6	4
Guardian	36	22	15	9	10	11	7	3	24	11	9
Daily Telegraph	72	51	37	24	36	54	32	33	39	41	26
Daily Express/Daily Mail											
/Sun	25	45	51	60	36	42	62	58	26	42	55
Daily Mirror/Daily Sketch	2	6	14	29	5	6	26	22	4	12	19
None ²	1	1	4	5	3	5	2	5	4	5	5
Sunday newspaper ¹											
	%	%	%	%	%	%	%	%	%	%	%
Sunday Times	49	35	26	18	51	35	22	21	37	27	26
Observer	60	40	26	15	33	23	15	15	48	31	20
Sunday Telegraph	9	16	15	14	17	21	13	13	11	18	14
Sunday Express	18	44	43	43	46	45	47	44	27	33	43
News of the World/Sunday Mirror/Sunday Citizen/People	3	7	22	36	6	6	30	28	5	16	27
None ²	—	6	13	25	8	8	18	19	4	12	15
(N) ³	(571)	(604)	(417)	(366)	(351)	(666)	(206)	(196)	(403)	(590)	(352)

¹ Figures refer to regular readership only, i.e. at least four times per week for daily newspapers, and at least three times per month for Sunday newspapers. Detailed figures on the readership of each listed newspaper are shown in Chapters III to XII.

² Some of the staff who are shown as reading "no" newspaper may well regularly read newspapers not listed, e.g. Financial Times, Scotsman, Yorkshire Post etc.

³ Totals add up to over 100 because many staff regularly read more than one daily or Sunday newspaper.

Table 2.14: Civil Service classes: Readership of weekly periodicals¹

Periodical	Admin- istrative Class	Upper and Middle Executive Class	Lower Executive Class	Clerical Class	Legal Class	Professional Works Group	Technical Works Class	Draughts- man Class	Scientific Officer Class	Experi- mental Officer Class	Scientific Assistant Class
	%	%	%	%	%	%	%	%	%	%	%
None ²	12	41	66	76	62	75	74	81	67	78	82
Economist	68	39	17	5	16	8	3	2	12	5	2
New Statesman	25	10	7	5	13	6	3	5	9	3	3
Spectator	17	4	4	4	11	5	1	2	3	1	1
New Society	33	10	5	3	7	1	1	1	5	2	1
Statist	18	3	1	1	2	1	1	1	1	—	—
Listener/Times Literary Supplement/Times Educational Supplement	23	24	17	16	12	14	20	11	13	16	14
(N) ³	(571)	(604)	(417)	(366)	(351)	(666)	(206)	(196)	(403)	(590)	(352)

¹ Respondents were asked the question "Do you usually read any of the following periodicals?"

² i.e., none of the periodicals listed. Many of the staff under the category "none" may well read other cultural or current affairs weekly journals (e.g. Illustrated London News, Tribune, Time and Tide) and, especially if members of the scientific or technical classes, specialist and professional journals.

³ Totals add up to over 100 because some staff read more than one periodical.

Chapter III

The Administrative Class

THE CLASS

The administrative class is a small group with a dominant role. It numbered little more than 2,500 in April, 1967 and its members, therefore, form only a tiny minority of all civil servants. Among the majority are other civil servants with comparable qualifications and important responsibilities—members of the legal class, the scientific officer class, the professional works group, etc. But it is members of the administrative class who control and co-ordinate the work of departments. They formulate policy and give direct advice to Ministers. They occupy virtually all the top posts in the service.¹ The administrative class, therefore, merits as detailed a description as is possible from our survey information, and as much comparison with foreign civil services, British professions and local administration as other studies and surveys afford.

The Sample

In this chapter we describe five sample groups taken from the administrative class; distinguishing between the “upper” and “lower” grades and between the men and women in each produces four sample groups, and a fifth, appropriately weighted, represents the whole class.²

The upper grades consist of assistant secretaries and above. They account for 47% of the class, with just under one third of the class being at the assistant secretary level (Table 3.1). All but 6 in the upper grades are classed as “permanent”. Salaries of the upper grades are comparable to those of the traditional professions, ranging from £3,500/£4,500 for assistant secretaries to £8,600 or £9,200 for permanent secretaries.³ The permanent secretary is normally the official head and accounting officer of a Department and is responsible to the Minister for all its activities. He is generally assisted by one, two or three deputy secretaries according to the size of the Department. Beneath the deputy secretaries are under secretaries who carry responsibility for advising Ministers either directly or through their superiors, on major questions of policy and for co-ordinating very large blocks of administrative work. Each under secretary has reporting to him a number of assistant secretaries in operational control of the divisions and carrying responsibility for day-to-day work done in the division. Response rates from the upper grades of over 95% produced one sample of 211 men and another of 50 women (a census minus two).

¹ For details of the various tasks the administrative class performs see the *Report of the Management Consultancy Group* pp. 12–23, Vol. 2 of this report. Pp. 56–69 should be consulted for a discussion of the relationship between members of the administrative class (and other desk classes) and members of specialists, scientific and technical classes.

² For details of the weighting procedure, see Annex I.

³ At April, 1967.

Table 3.1: Administrative Class: Grade by tenure, sex and salary

	Permanent secretary ¹	Deputy secretary	Under secretary	Assistant secretary	Principal	Assistant principal	All
% of class ²	% 1	% 3	% 11	% 32	% 43	% 10	% 100
% permanent ²	100	100	99	100	94	99	97
% men ³	100	97	97	94	90	87	92
Salary	£8,100– £9,200	£6,300	£5,250	£3,500– £4,500	£2,250– £3,107	£926– £1,574	
(N) ⁴	(28)	(72)	(272)	(802)	(1,066)	(258)	(2,498)

¹ Includes the two joint permanent secretaries to the Treasury, the secretary to the Cabinet and second permanent secretaries.

² Calculated from figures for the 1st April, 1967 on p. 38 of the *Introductory Factual Memorandum on the Civil Service*, submitted by H.M. Treasury to the Fulton Committee, and published in Volume 4 of this Report.

³ These figures were provided by the Central Staff Record and refer to permanent staff only in November, 1966.

⁴ Includes temporary staff.

The lower grades consist of assistant principals and principals who form just over half the class (53%). Salaries range from £926 to £3,107 per annum.¹ Principals are usually in charge of a branch or section of a division containing numbers of executive and clerical staff. The section may also contain an assistant principal, but this is basically a training grade in which the new graduate entrants usually serve for five years. Assistant principals and principals also act as private secretaries to Ministers and senior officials. The great majority are classed as "permanent", though 6% of the principals were "temporaries" (i.e. without established status) at the latest count. These two lower grades were the origin of two sample groups, one of 196 men and the other of 114 women.

Sex

Women form 8% of the class and they are concentrated in the lower grades, where they comprise 10% of the staff. The tendency to leave the Civil Service on marriage or pregnancy while comparatively young and after only short service only partly explains this situation. Table 3.2 shows that, of *surviving* members first established to the Civil Service before the war, a far higher proportion of men than women (70% as against 37%) are now in the upper grades. Similar differentials in "career success" between the sexes occur for both war-time and post-war recruits.² Moreover, our data indicate that the distribution of direct entrants, transfers and promotees among men does not significantly differ from that among women. This small proportion of women in the upper grades, however, is not as marked as in the senior ranks of the United States Federal Service. 88% of the women at the level of G.S. 14 and above (roughly equivalent

¹ At April, 1967.

² In this case, however, the differences are not statistically significant.

to the administrative class in authority and responsibility) are in G.S. 14 and 15¹ compared with 71 % of the women in the administrative class who hold positions in the lower grades.²

Table 3.2: Administrative Class: Grade distribution according to year of permanent establishment to the Civil Service, and to sex

Present grade	Established before 1940			Appointed 1940-45			Established after 1945		
	Men	Women	All	Men	Women	All	Men	Women	All
	%	%	%	%	%	%	%	%	%
Upper grades	70	37	61	73	51	59	38	11	31
Lower grades	30	63	39	27	49	41	62	89	69
Total	100	100	100	100	100	100	100	100	100
(N)	(150)	(49)	(199)	(26)	(49)	(75)	(231)	(66)	(297)

On the whole the administrative class recruits a greater proportion of women than other higher classes with specialist, scientific and technical functions, but falls behind some outside occupations in the public sector calling for a similar university background (Table 3.3). For example, 14% of university teachers in arts and social science faculties and 15% of graduate administrators in local education authorities are women, compared with 8% of the administrative class. The administrative class, however, does not recruit as large a proportion of women as the executive class where women comprise 20% of the class. On the other hand, the senior United States Federal Service only employs 1% who are women.

Salaries

The salaries of the administrative class may be compared with those of university teachers and, less certainly, with businessmen on the grounds that all these occupations compete for graduates and involve comparable responsibilities. That industry offers the highest incomes is no surprise—though one point of reservation must be made. The figures for industry reproduced in Table 3.4 relate to chairmen and managing directors only; they do not include all ranks in industry which may be thought to hold positions comparable to the administrative class. Thus the table does not include for comparative purposes the salaries of the large number of non-directorial executives in industry whose responsibilities are similar to members of the administrative class. What stands out in the comparison with academics is the existence of 15% of administrative class posts (under secretary and above) beyond the range of a university professorship; and 47% beyond that of a senior lectureship. Moreover, the salary of a principal in

¹ W. L. Warner *et al* "Women Federal Executives," *Public Personnel Review*, October, 1962.

² Calculated from figures supplied by the Central Staff Record and not included in Table 3.2.

Table 3.3: Women as a proportion of the higher classes and the Executive Class in the Civil Service, of comparative professions and occupations in Great Britain; and in the United States Federal Executive

Civil Service class; occupation or profession	Women as a proportion of members	(N)
	%	
Administrative class	8	(2,302)
Scientific Officer class	2	(3,221)
Legal class	7	(733)
Professional works group	—	(3,799)
Executive class	20	(42,158)
University teachers ¹	10	(3,006)
University teachers in arts/ humanities and social science faculties	14	(1,185)
Law ²	4	(19,700)
Medicine ²	18	(104,123)
L.E.A. administration ³ (graduates only)	15	(927)
United States Federal Service ⁴ (G.S. 14 and above)	1	(10,851)

Note

Figures for the Civil Service classes were provided by the Central Staff Record and apply to permanent staff only, in November, 1966.

¹ *Report of the Committee on Higher Education (Robbins Report)*, Appendix Three p.172, H.M.S.O., Cmd. 2154—III, London, October, 1963.

² Viola Klein, "The demand for professional womanpower", *British Journal of Sociology*. Vol. XVII, 1966, pp.186–7.

³ Margherita Rendel, *Graduates Administrators in LEAs*, p.5, University of London Institution of Education and Appointments Board, 1968.

⁴ W. L. Warner *et al.*, *The American Federal Executive*, p.177, Yale University Press, New Haven, 1963.

the Civil Service for a man aged thirty or less seems to compare very favourably with normal alternative opportunities in the universities and industry. Against this has to be set the wider opportunities for supplementary earnings which are open to dons and closed to civil servants. But academic supplementary earnings are significant only for a small minority. According to the N.I.C. Report in March, 1964, "... a large proportion received either no supplementary earnings at all or earnings of a very modest level, and . . . at the other end of the scale, a small proportion of teachers in each group earned quite substantial sums. Taking all faculties together, the . . . median for all grades was £62 and only in the case of professors and readers did the median exceed £100."¹

¹ *National Incomes Commission Report No. 3. "Remuneration of Academic Staff in Universities and Colleges of Advanced Technology"* p. 52, para. 159.

Table 3.4: *Administrative Class*¹, *university teachers*², and *directors*³: *Salary ranges*

Salary range p.a.	Administrative class April, 1967	University teachers ²	Directors ³
	%	%	%
£5,000-£9,200 or above	15	—	56
£3,500-£5,000	32	13 (professors)	33 £3,000- £5,000
£1,600-£3,107	43	67 (readers, senior lecturers, lecturers)	11
£926-£1,574	10	10 (assistant lecturers)	
Don't know, No answer	—	10	—
Total	100	100	100
(N)	(2,498)	(3,006)	(2,378)

Note

Private secretaries to Ministers and senior officials receive allowances, normally varying between £200 and £475, in recognition partly of the added responsibility they carry and partly of unusually long and irregular hours of work.

Assistant principals receive a special increase of £120 on completion of probation, normally after two years service.

¹ Calculated from H.M. Treasury, *Introductory Factual Memorandum on the Civil Service* p. 38.

² *Report of the Committee on Higher Education (Robbins Report)* Appendix Three p.33. Salary ranges refer to 1967: grade distributions to 1961/2.

³ *The Director*, April, 1966. "Directors" refer to chairmen and managing directors of whom half worked in companies with a capital of £100,000 or more.

Tenure

All but a handful of the class hold permanent appointments (Table 3.1). In Chapter I we pointed out that the proportion of temporary staff declined in the higher classes and is smaller in the desk than in the scientific or technical classes, and the administrative class contains the smallest proportion of unestablished staff among the ten classes we have surveyed.

27% of the class, however, were first appointed to the Civil Service in a temporary capacity (Table 3.5). The proportion is at least twice as high for women as for men, whether in the lower¹ or upper grades, because a disproportionate number of the women now in the class first entered the Civil Service during the war (Table 3.6) when there were practically no established appointments.

¹ This is not significant at the 10% level, however, for the lower grades.

Table 3.5: *Administrative Class: Initial tenure on appointment*

Initial tenure	Upper grades		Lower grades		All
	Men	Women	Men	Women	
	%	%	%	%	%
Permanent	77	44	85	69	73
Temporary	23	56	15	31	27
Total	100	100	100	100	100
(N)	(211)	(50)	(196)	(114)	(571)

Length of Service

The years of appointment and of permanent establishment to the Civil Service of the administrative class, distinguishing between the component sample groups and between direct entrants, transfers and promotees¹ appear in Table 3.6. In the lower grades women tend to have served in an established capacity longer than men (55% compared with 37% of the men in the lower grades were established in the Civil Service before 1950). Substantial minorities (around a quarter) of both men and women in the lower grades were first established in the Civil Service before the war. Most are promotees of whom two-thirds were initially established before 1940, compared with 16% of the direct entrants first established in the same period. The large gap in length of established service between direct entrants and promotees contrasts with the position in the scientific officer class. One reason for the opposite patterns in the two classes may be that a far greater proportion of the latter's promotees are graduates.

In the upper grades women have on average a shorter period of establishment than men but because of the very large percentage of women in these grades who were first appointed during the war the average length of total service varies very little between the sexes.

The administrative class has two or three times the proportion of staff established before the war as the legal and scientific officer classes or the professional works group (Table 1.5). The gap in seniority narrows, however, if year of appointment is considered.

Method of entry into the Administrative Class

Recruits enter the class by the following methods:

- (i) open competition to the assistant principal grade—the normal route.

¹ "Transfers" are members who first joined the Civil Service as members of a class, other than the administrative class, where graduate recruitment was normal. Transfers into the administrative class are former members of, for example, the legal, economist and statistician classes, or the factory and tax inspectorate. "Promotees" are defined as those who began their Civil Service career as members of a class where graduate recruitment is not normal and include mainly former members of the general and departmental executive and clerical classes.

Table 3.6: Administrative Class: Year of appointment¹ and year of permanent establishment to the Civil Service

Year	Upper grades				Lower grades				All		Direct entrants	Transfers	Promotees
	Men		Women		Men		Women		Appointed	Established	%	%	%
	Appointed	Established	Appointed	Established	Appointed	Established	Appointed	Established					
1920-29	52	3	38	4	24	3	30	4	37	3	16	47	68
1930-39		44		32		20		23					
1940-45		—		—		—		—					
	9	—	50	—	4	—	21	—	8	—	(appnd.) 11	(appnd.) 11	(appnd.) 6
1946-49	39	40	12	54	72	14	49	28	55	29	25	16	20
1950-59		12		10		24		18					
1960 and after		1		—		38		27					
Total	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(211)	(211)	(50)	(50)	(196)	(196)	(114)	(114)	(571)	(571)	(348)	(54)	(169)

¹ As in all other chapters, "year of appointment" refers to appointment to the Civil Service, and not necessarily to the present class or grade of the sample group. Exceptions are specifically mentioned.

- (ii) special open competitions for direct entry to the principal grade for candidates aged thirty to thirty-five (introduced in 1964), for candidates aged thirty-one to fifty-one (since 1965) and for former members of the Forces and Overseas Civil Service.
- (iii) direct recruitment by open competition of up to three assistant secretaries a year.
- (iv) entry from other classes by limited competition to the assistant principal grade. One fifth of assistant principal vacancies are in theory reserved for entrants by this method, but the number of candidates of the required standard has not reached this proportion in recent years (Tables 3.7 and 3.8).
- (v) departmental and central transfer or promotion to the principal grade from outside the administrative class.
- (vi) special schemes for the transfer of executive officers to the assistant principal grade (introduced in 1963) and of members of the scientific officer class to the principal grade (introduced in 1964).

Our survey did not include method of entry into the administrative class. Nevertheless figures in Table 3.7 show that direct entry from outside the Civil Service into the administrative class both at assistant principal and principal grades has increased since 1949-53, while indirect entry to these grades from within the Civil Service whether by limited competition, departmental promotion or transfer, or special schemes has decreased relatively.

*Table 3.7: New entrants to the principal and assistant principal grades of the Administrative Class in 1949-53¹ and 1961-65²:
Method of entry into the administrative class*

Method of entry	All new entrants 1949-53 ¹	New entrants to the assistant principal and principal grades 1961-65 ²
	%	%
Open competition and other direct entry	50	63
Limited competition	11	6
Promotion and transfer from other classes	39	31
Total	100	100
(N)	(447)	(586)

¹ R. K. Kelsall, *Higher Civil Servants in Great Britain*, p. 57, Routledge and Kegan Paul, London, 1955. The very great majority of new entrants to the class began in the principal and assistant principal grades.

² Calculated from Tables 21 and 22 in H.M. Treasury, *Civil Service Manpower*, 1966.

Method of permanent establishment to the Civil Service

In Table 3.8 we show the method of permanent establishment to the Civil Service of the administrative class, distinguishing between its sample groups and between direct entrants, transfers and promotees. The majority of the class were established by open competition (69%) a figure well in excess of other higher classes. The post-war reconstructions were a peculiarity and interrupted the normal pattern of entrance through open competition. The pattern for women especially is modified by the relatively greater importance for them of the post-war reconstruction schemes of establishment. Nomination¹ has declined to negligible proportions and was only of importance in the case of war-time direct entrants (Table 3.9). The significant consequence of special schemes such as competitions for members of H.M. Forces and the Overseas Civil Service (the latter count as direct entrants and not transfers) may be seen in Table 3.9: over one-fifth of the direct entrants recruited since 1961 came in by such "other" methods.

Table 3.8: Administrative class: Method of permanent establishment to the Civil Service

Method of permanent establishment	Upper grades		Lower grades		All	Direct entrants	Transfers	Promotees
	Men	Women	Men	Women				
	%	%	%	%	%	%	%	%
Open competition	60	48	79	69	69	64	70	80
Post-war reconstruction competition	25	42	8	15	17	22	12	9
Nomination	11	6	4	4	7	7	7	8
Limited competition	1	2	2	3	2	—	8	3
Other ¹	3	2	7	9	5	7	3	—
Total	100	100	100	100	100	100	100	100
(N)	(211)	(50)	(196)	(114)	(571)	(348)	(54)	(169)

¹ Mainly special competitions for members of H.M. Forces and Overseas Civil Service; but includes reinstatement, transfer from a quasi-government department, and appointment in pursuance of an Act of Parliament.

Location

Ninety per cent of the administrative class work in London (Table 3.10) and this represents an even greater metropolitan concentration than among United States "programme managers" of whom 82% held positions in Washington². 7% work in Scotland (all in Edinburgh) and two out of three of these were born in Scotland. A small point of interest is the relatively high proportion of transfers who hold posts in the provinces (21% compared with 9% of the direct entrants).

¹ Nomination means permanent establishment by departmental recommendation. Over half the nominees in the administrative class were direct entrants, mostly during the war when only temporary appointments were made, and were subsequently nominated for establishment by their department. The remainder were established in their class of origin before promotion or transfer into the administrative class.

² J. J. Corson and R. S. Paul *Men Near the Top* p. 66, John Hopkins Press, Baltimore, 1966. "Programme Managers" are defined as "bureau chiefs", "office heads" and "division directors", responsible for accompanying a "programme". *Ibid.* p. 17.

Table 3.9: *Direct entrants to the administrative class: Year of permanent establishment by method of permanent establishment*

Method of permanent establishment	Established						
	Before 1940	(Appointed) 1940-5	1946-50	1951-55	1956-60	1961 and after	All
	%	%	%	%	%	%	%
Open competition	98	12	23	100	94	77	64
Post-war reconstruction competition	2	43	66	—	—	—	22
Nomination	—	40	7	—	—	1	7
Other	—	4	3	—	6	22	7
Total	100	100	100	100	100	100	100
(N)	(51)	(60)	(78)	(35)	(36)	(88)	(348)

Table 3.10: *Administrative class: Location*

Location	Upper grades		Lower grades		All	Direct entrants	Transfers	Promotees
	Men	Women	Men	Women				
	%	%	%	%	%	%	%	%
Inner London	86	94	90	91	89	91	78	87
Outer London	1	—	—	1	1			
North	2	—	—	1	1	9	21	13
Rest of England and Wales	5	—	2	1	3			
Scotland	6	6	7	6	7			
Total	100	100	100	100	100	100	100	100
(N)	(211)	(50)	(196)	(114)	(571)	(348)	(54)	(169)

Departmental distribution

The distribution of the administrative class between types of department is shown in Table 3.11 and compared with that for under secretaries and above in 1929, 1939 and 1950. There appears to have been a growth in the proportion of the class employed in social departments, at the expense of "other" departments, no doubt reflecting the general growth of the former. A relatively high proportion of posts are held by the upper grades in the technical ministries, though few by women.

Only 18% of the women in the upper grades compared with 30% of the men are in technical departments. Instead, female staff tend to be disproportionately concentrated in the social ministries. A recent survey of the United States Federal Service also found that women were over-represented in its social welfare departments and only seriously under-represented in the Department of

Defence which forms a major part of its technical departments.¹ There is little variation in the departmental distribution of direct entrants, transfers and promotees, except that a relatively large proportion of promotees and a small proportion of transfers work in the technical ministries (Table 3.11).

Table 3.11: *Administrative class: Departmental distribution*

Type of department	Under secretaries and above ¹			Upper grades 1967		Lower grades 1967		All 1967	Direct entrants 1967	Transfers 1967	Promotees 1967
	1929	1939	1950	Men	Women	Men	Women				
	%	%	%	%	%	%	%	%	%	%	%
Economic	28	26	24	27	28	30	32	27	29	28	28
Technical	21	22	19	30	18	26	11	24	26	12	32
Social	19	19	14	21	30	23	35	22	24	24	21
Other	32	33	43	22	24	21	22	27	20	26	19
Total	100	100	100	100	100	100	100	100	100	100	100
(N)	(246)	(396)	(939)	(211)	(50)	(196)	(114)	(571)	(348)	(54)	(169)

¹ R. K. Kelsall, *op. cit.*, p.15

DEMOGRAPHIC COMPOSITION

Age

The age structure of the administrative class is set out in Table 3.12 along with comparable figures for:

- (i) the United States and Canadian Federal Civil Services.
- (ii) directors and top managers in British industry.
- (iii) university teachers in Great Britain.
- (iv) graduate administrators in British local education authorities.

In Table 3.13 it is contrasted with that of other higher classes.

The typical (average) member of the administrative class is aged forty-six, between thirty-nine and forty in the lower grades and just under fifty in the upper grades. Over a fifth of the lower grades are under thirty and only a few members in the whole class are over sixty. There is very little difference in the age distribution between male and female staff within the same grades, in contrast to the situation in the United States.² It is noticeable that there is a considerable number of older men and women in the lower grades (17% and 19% respectively, are over fifty). Some are promotees; some are transfers who are, as is shown in Table 3.12, considerably older than average; but transfers and promotees together form two-fifths of the total class—so some of the “residue” in the lower grades are comparative failures among direct entrants. Promotees are slightly, but not markedly, older than direct entrants but younger than those transferred from other graduate classes.

¹ W. L. Warner *et al.*, *Public Personnel Review*.

² “The discrepancy [between men and women] in average age increases sharply as the G.S. level increases; women executives at the higher levels are considerably older than their male counterparts”. W. L. Warner *et al.*, *The American Federal Executive*, p. 187.

Age	Administrative class										United States Federal Service ¹	Canadian Federal Civil Service ²	Great Britain					Graduate administrators in L.E.A. ⁶
	Upper grades				Lower grades		All	Direct entrants	Transfers	Pro-motees			Top managers ⁴	University teachers ⁵				
	Men	Women	Men	Women	Men	Women								In arts/humanities and social science faculties	Male Senior lecturers and professors	Assistant lecturers and lecturers		
Under 26	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
26-30	—	—	8	11	3	5*	5*	5*	—	—	2	1	19	22	16	—	24	3
31-35	—	—	14	11	7	—	—	—	—	—	13	15	38	31	33	17	49	19
36-40	9	4	12	10	12	63	43	63	6	—	—	—	—	—	—	—	—	—
41-45	17	20	10	14	12	—	—	—	12	8	29	38	25	21	28	39	18	30
46-50	25	42	18	22	22	—	—	—	27	22	37	37	18	26	24	44	8	32
51-55	30	20	8	10	20	33	52	33	25	21	—	—	—	—	—	—	—	—
56-60	18	14	8	5	12	—	—	—	19	18	—	—	—	—	—	—	—	—
61-65	1	—	1	4	3	—	—	—	10	11	12	9	—	—	—	—	—	—
Over 65	—	—	—	—	—	—	—	—	1	11	7	—	—	—	—	—	—	—
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(211)	(50)	(196)	(114)	(571)	(348)	(54)	(169)	(362)	(301)	(2,378)	(110)	(2,704)	(302)	(1,185)	(948)	(1,744)	(926)
Average Age:	50.2	49.5	40.2	41.2	46	X	X	X	X	X	X	48	X	X	X	X	X	X

1 D. T. Stanley, *The Higher Civil Service*, p. 25, Brookings Institute, 1964, refers to staff at G.S. 15-18 level.

2 C. E. Caiden, *The Federal Civil Service of Canada*, p. 324, London, 1960 (typescript deposited in the library of the London School of Economics). The sample covers administrative posts only above the level of director, in the salary range of at least £8,000 p.a. in 1960.

3 *The Director*, April, 1966.

4 Calculated from R. V. Clements, *Managers, A Study of their careers in industry*, p. 184, George Allen and Unwin, London, 1958.

5 Calculated from the *Report of the Committee on Higher Education (Robbins Report)* Appendix Three, pp. 172-4.

6 Margherita Rendel, *op. cit.*, p. 7.

Note:

There is a year's discrepancy in the age categories originally used for some of the comparative samples. For example, the figures for the Canadian Federal Civil Service in fact refer to the age-groups 30-34, 35-39 etc., rather than 31-35 and 36-40.

* 'X', as in all other tables in this survey, denotes unavailable information.

* Under 33.

Table 3.13: Men in the administrative, legal and scientific officer classes, and works group of professional classes: Age

Age	Upper grades					Lower grades				
	Admin- istrative class	Legal class	Scientific officer class	Professional works group		Admin- istrative class	Legal class	Scientific officer class	Professional works group	
				Architects and surveyors	Engineers				Architects and surveyors	Engineers
	%	%	%	%	%	%	%	%	%	%
Under 26	—	—	—	—	—	8	—	—	—	—
26-30	—	—	—	—	—	14	2	2	1	1
31-35	—	1	—	—	—	21	14	13	3	4
36-40	9	1	4	6	—	12	26	20	11	11
41-45	17	5	20	4	1	10	14	21	15	20
46-50	25	18	26	11	11	18	18	18	15	19
51-55	30	35	23	33	33	8	16	9	25	22
56-60	18	31	19	38	47	8	7	11	21	15
61-65	1	7	8	9	8	1	1	5	9	8
Over 65	—	2	—	—	—	—	1	2	—	—
Total	100	100	100	100	100	100	100	100	100	100
(N)	(211)	(172)	(206)	(138)	(135)	(196)	(179)	(197)	(201)	(192)
Average age	50.2	54.3	51.4	54.4	56	40.2	44.4	45.8	50.7	49.4

The British administrative class is on average considerably younger than its United States and Canadian counterparts, the majority of these being over fifty and the majority of the administrative class being under fifty. Part of the explanation may lie in the Canadian and United States tradition of recruiting staff from those well established in outside professions and business.

The class is also younger than men who reach comparable positions in British industry and commerce; only 35 % of the class are over fifty compared with 56 % of directors and 46 % of top managers. Men in the upper grades of the administrative class are concentrated in a narrower age range than top managers and directors; relatively fewer are under 35 or over 60. However, data on university teachers and administrators in local education authorities indicate that the administrative class is older than men in certain occupations calling for a similar content and standard of university education, although not commanding such high salaries. Thus 17 % of professors, senior lecturers and readers are under forty compared with 4 % to 9 % of the upper grades of the administrative class, and nearly three-quarters of assistant lecturers and lecturers are under forty compared with 43 % to 44 % of principals and assistant principals. A consideration of arts and social science university staff alone does not alter the age discrepancy which is mainly explained by the recent rapid expansion of universities.

Salaries in the upper grades of the four higher classes all begin at about £3,500 per annum and in Table 3.13 we can compare the composition of the upper grades among the different classes. The administrative class is the youngest of the higher classes, distinctly so compared with the legal class and professional works group. It is the only higher class where the average age in the upper grades

is under fifty and in the lower grades under forty. The average member of the lower grades of the professional works group is as old as the typical (average) man in the upper administrative class. Members of the administrative class reach the upper grades at an earlier age than civil servants in other higher classes essentially because it contains a larger proportion of upper grade posts. This reflects its dominant position within the Civil Service in relation to other graduate but professional and specialist classes.

Marital status

Table 3.14 shows the marital status of men and women in the administrative class. The table also gives comparative figures for employed women in the country at large, female university teachers and women in the United States Federal Service.

Table 3.14: Administrative class, employed women in Great Britain¹, women in university teaching², and women in the United States Federal Service³: Marital status

Marital status	Administrative class					Great Britain		Women in the United States Federal Service ³
	All	Men		Women		Women in employment (April, 1966)	Women in university teaching ²	
		Upper grades	Lower grades	Upper grades	Lower grades			
	%	%	%	%	%	%	%	%
Single	7	5	18	58	64	43	66	66
Married	92	95	81	32	31	} 57	} 34	} 34
Widowed/separated/ divorced	1	—	2	10	5			
Total	100	100	100	100	100	100	100	100
(N)	(571)	(211)	(196)	(50)	(114)		(302)	(145)

¹ Calculated from figures in Table 5 of the *Sample Census 1966, Great Britain, Summary Tables*, H.M.S.O., London, 1967.

² *Report of the Committee on Higher Education (Robbins Report)* Appendix Three, p.18.

³ W. L. Warner *et al.*, *The American Federal Executive*, pp. 90-91.

Eighteen per cent of the male principals and assistant principals are bachelors, a normal proportion of men in the lower grades of a Civil Service class, but suggesting a pattern of delayed marriage which becomes clearer in Table 3.15. The proportion of those aged twenty-one to thirty-two who are bachelors is 36% for the British male population and 47% for men in the assistant principal and principal grades; but in the thirty-three to fifty age group the figure for bachelors drops to below that of the male population. Expressed another way, the proportion who are bachelors drops from 47% of those aged under thirty-three to 4% of those aged thirty-three to fifty in the case of men in the lower grades of the administrative class, but only from 36% to 11% for the same age-groups in the national male population.

The majority of women active in the professions and most other non-manual occupations are single and women in the administrative class are no exception, 58% of the upper grades and 64% of the lower being spinsters. These figures are

Table 3.15: Men in the lower grades, and women in all grades of the administrative class; Great Britain adult population 1966¹: Age by marital status

	Administrative class				Great Britain population, 1966 ¹					
	Men in the lower grades		Women in all grades		Men			Women		
	Under 33	33-50	Over 50	Under 33	21-32	33-49	50-65	21-32	33-49	50-65
Marital status										
Single	% 47	% 4	% 3	% 69	% 36	% 11	% 8	% 21	% 9	% 12
Married	53	94	94	31	64	87	87	79	88	71
Widowed/separated/ divorced	—	2	3	—	—	2	5	1	3	17
Total	100	100	100	100	100	100	100	100	100	100
(N)	(64)	(98)	(34)	(32)	(39)					

¹ Calculated from figures in Table 2 of *Sample Census 1966, Great Britain, Summary Tables*.

higher than for the employed female population but the latter includes manual workers. Otherwise evidence indicates that the administrative class has proportionately fewer spinsters among its female staff than some other civil services, other classes within the Civil Service and professions outside. It is rather surprising that married women are relatively more numerous in the administrative class than among university teachers, considering that a university teaching job is more compatible with domestic commitments. It should be noted also that, with the exception of the clerical class, the administrative class contains relatively more married women than any other class surveyed which recruits more than a negligible number of female staff.

Geographical origins

There is a general tendency for civil servants to have been born in or around their country's capital, as well as to work there. Warner and others,¹ in their study of the United States Federal Service, mention the preponderance of those born in the District of Columbia. Ridley and Blondel² report that 43% of entrants to the French Ecole Nationale d'Administration were born in the Paris or Seine et Oise region, although this area accounts for a much smaller proportion of the present French population than does London of the British population. In Table 3.16 we compare the geographical origins of the administrative class with the residential distribution of the population in the census year nearest to the class's average year of birth and find that the London and South East region accounts for two-fifths of the class, and is substantially "over-represented". The other three main regions of the United Kingdom are about equally "under-represented"; the North contributing just under a quarter of the class and the rest of England, with Wales, Scotland and Northern Ireland slightly over a quarter. Generally, there are no important differences between the male and female staff or the upper and lower grades in geographical origins.

Compared with the whole class transfers were disproportionately born in the North or outside England; promotees are markedly from London and the South East (51% of them compared with 37% of direct entrants and 41% of the whole class).³ The pattern of regional origin of the transfers fits in with what we have already learned of their location (Table 3.10 and p. 43). The tendency towards a metropolitan background among promotees is probably a consequence of two factors. First, there is a much wider geographical spread of posts in the executive and clerical classes (the source of most promotees) than in the administrative class which, in particular, has a far higher concentration of metropolitan posts (Table 1.6). Second, members born in the same region in which they work form a higher proportion of the executive and clerical classes than of the administrative class. Members of the executive class *working* in the London and South East region may be more likely to seek and accept promotion into the administrative class if this does not involve moving home. Thus members of the executive class *born* in London and the South East are likely to figure prominently among the promotees.

¹ W. L. Warner *et al.* *The American Federal Executive*, pp. 43-5.

² Calculated from F. F. Ridley and J. Blondel, *Public Administration in France*, p. 38, Routledge and Kegan Paul, 1964.

³ However, the number of transfers was insufficient for statistically significant results.

Table 3.16: Administrative class: Place of birth, and distribution of the Great Britain population 1921¹ and 1961²:

Region	Administrative class							Great Britain	
	Upper grades		Lower grades		All	Direct entrants	Transfers	Promotees	Residence
	Men	Women	Men	Women					1921 ¹
North	%	%	%	%	%	%	%	%	%
East and West Riding	3 } 23	2 } 22	2 } 24	6 } 21	3 } 24	25 }	28 }	21 }	32 }
North West	9 }	4 }	7 }	3 }	7 }				
North Midlands	3 }	10 }	11 }	9 }	11 }				
		6 }	4 }	3 }	3 }				
London and South East	41	30	42	41	41	37	32	51	24
Rest of Midlands	1 }	2 }	2 }	5 }	2 }	16 }	12 }	10 }	23 }
East	6 }	8 }	4 }	7 }	5 }				
Rest of South	3 }	26 }	4 }	3 }	14 }				
South West	5 }	8 }	3 }	2 }	4 }				
Wales	3 }	4 }	4 }	3 }	3 }	11 }	16 }	14 }	20 }
Scotland	10 }	10 }	8 }	10 }	9 }				
Northern Ireland	13 }	14 }	13 }	14 }	13 }				
Abroad ³	7	7	8	8	8	10	12	4	x
Total	100	100	100	100	100	100	100	100	100
(N)	(211)	(50)	(196)	(114)	(571)	(348)	(54)	(169)	

¹ Calculated from Tables III and VIII of *Census of England and Wales 1921, Summary Report*, H.M.S.O., Cmd 1485, London 1921.² Calculated from Tables 2 and 6 in *Census 1961, England and Wales, Preliminary Report*, H.M.S.O., London.³ Mainly the Commonwealth.

SOCIAL BACKGROUND

It has frequently been asserted that the administrative class of the British Civil Service is a socially exclusive elite. It is popularly believed that the great majority of its members are recruited from the middle and upper classes, educated first at the public schools and then at Oxford or Cambridge, and that throughout their careers they have little contact with, or experience of, the "real life" of the country outside Whitehall. In the sections which follow we discuss how far this is an accurate picture of the 2,500 members of the administrative class. We examine their social origins. We also examine their educational background and qualifications. In both cases we distinguish between direct entrants, transfers and promotees; we seek to clarify any social and educational trends in recent recruitment; and we analyse the way different methods of entry into the class affect its social and educational composition. In these various analyses we compare the administrative class with other civil service classes, with their counterparts in foreign civil services and with similar occupational groups in Britain outside the Civil Service.

Social class origins

A substantial proportion of the class is drawn from "civil service families"; 22% are the sons or daughters of civil servants, the great majority of whom were also in the administrative class or other classes of the same social status (Table 3.17). Thus the administrative class has the highest degree of "self recruitment" among all civil service classes covered in the survey. This rough measure of occupational self recruitment is also put into perspective by comparisons with the very low figure of 0.2% for United States federal executives¹ and the relatively high figure of 28.5% for the French senior Civil Service.² Today's administrative class is less self recruiting than the upper echelons of industry and commerce where, especially in small firms, fathers can hand down directorships and obtain managerial posts for their sons. Thus Copeman³ found that 28% of the directors he interviewed were at least the second generation of directors and *The Director*⁴ found in its survey that 63% of directors had fathers who were business men. Our current survey figure is also less than that calculated by Kelsall⁵ for pre-war self recruitment in the medical and legal professions and the Church, but more than that for teaching. Moreover, it should be noted that some of the self recruitment to the administrative class takes the form of intergenerational upward mobility within the Civil Service as a whole: for example, 4% of the upper grades have fathers who were in Civil Service classes ranked by the Registrar General in social classes III to V.

Two thirds of the class were born into the middle or upper classes (i.e. social classes I and II in the Registrar General's classification) compared with 19% who are the children of manual workers (Table 3.18). The typical (median) member comes from social class II and, although the administrative class is

¹ W. L. Warner *et al.* *The American Federal Executive*, p. 29.

² H. Parris, "Twenty Years of L'Ecole Nationale d'Administration", *Public Administration*, Winter, 1965.

³ G. H. Copeman, *Leaders of British Industry*, p. 95, Gee and Company, London 1955. His sample consisted of directors on the boards of public companies with net shareholders' assets of at least £1m. in 1951.

⁴ *The Director*, April, 1966.

⁵ R. K. Kelsall, "Self recruitment in four professions" in David Glass (ed.), *Social Mobility in Britain*, Routledge and Kegan Paul, London, 1954.

Table 3.17: Administrative class: Proportion whose fathers were civil servants

Whether father a civil servant	Upper grades		Lower grades		All
	Men	Women	Men	Women	
	%	%	%	%	%
No	77	78	78	77	78
Yes, in social class I or II	19	18	18	20	18
Yes, in social classes III-V	4	4	4	3	4
Total	100	100	100	100	100
(N)	(211)	(50)	(196)	(114)	(571)

Table 3.18: Administrative class: Social class origins (father's occupation)

Father's occupation		Upper grades		Lower grades		All	Under secretaries and above		
		Men	Women	Men	Women		1929 ¹	1939 ¹	1950 ¹
		%	%	%	%	%	%	%	%
I	Higher professional and managerial	22	24	21	25	21	33	37	29
II	Intermediate professional and managerial	45	54	47	51	46	47	42	41
III(i)	Skilled non-manual	12	6	10	8	10	12	16	24
III(ii)	Skilled manual	13	4	14	10	13			
IV	Semi skilled	6	6	4	4	4	—	3	3
V	Unskilled	—	—	3	2	2			
	Other	2	6	1	1	4	8	3	3
	Total	100	100	100	100	100	100	100	100
	(N)	(211)	(50)	(196)	(114)	(571)	(121)	(179)	(331)

¹ R. K. Kelsall, *Higher Civil Servants in Great Britain*, p. 153.

technically placed by the Registrar General in social class II, he may be considered to have been upwardly mobile in terms of his father's occupation, but *within* the middle class. Women in the class have social origins which are "superior" to those of their male counterparts in both lower and upper grades. This pattern is found in other Civil Service classes, and in the United States Federal Services,¹ and it reflects the greater degree of selection in women's education.

The social background of lower and upper grades is very similar, suggesting that the class may have been recruiting stable proportions from the same social classes over a long period. However, it is clear that the social base of the upper grades has widened since before the war. In 1929 and 1939 about 80% of the under secretaries and higher grades were born into the middle class; in 1950 and 1967 the figure fell to 70% or below, largely at the expense of social class I.

¹ W. L. Warner *et al.*, *Public Personnel Review*.

However, it would be unwise to assume that the class is directly recruiting, or receiving as a result of class to class promotion, members from a steadily wider social background. As far as promotees are concerned Table 3.19 appears to show an opposite trend—the most recent intake being more middle class than previously. But the numbers in our samples were too small to make this a categorical generalisation.¹ For direct entrants the picture is clear. Our sample shows (Table 3.19) that while 77% of the surviving direct entrants recruited before 1940 were from social classes I and II, the comparable figures since the war are 79% in 1946–50, 64% in 1951–55, 80% in 1956–60, and 85% in 1961–65. These figures suggest that apart from the period 1951–55 the post-war trend in direct recruitment has been towards increasing the proportions from social classes I and II; the figure of 85% with a middle-class background directly recruited in the 1960's is the highest for any five year period of recruitment of surviving direct entrants.

Before any firm conclusions can be reached about the social trend in post-war direct recruitment it is important to consider the figures just presented (which are based on a *sample* of just over 20% of the administrative class) against the figures since the war for *all* direct recruits through Methods I and II to the assistant principal grade.² These are given in Table 3.24. For the period 1948–56 77% of direct entrants came from social classes I and II; the figure rose to 83.8% in 1957–63, and remained at that level for 1964–65 when it was 83.3%. There was a fall in 1966–67 to 75.7%—which is rather lower than the figure for 1948–56.

Thus the pattern shown by the figures in the preceding paragraph (and reproduced in Table 3.24) is broadly similar to the pattern derived from the sample (reproduced in Table 3.19). From the mid-fifties the trend was towards an increase in the proportion of direct entrants from the middle classes (i.e. social classes I and II). In 1966–67, however, the trend was reversed and the proportion of middle-class direct entrants came back to the level of the late 1940's and early 1950's. Thus, since the war there has been no widening of the social background from which direct entrants to the administrative class have been drawn; and for a number of years the trend was towards a still larger recruitment from those born into social classes I and II.

This pattern since the war in the proportion of direct entrants from the middle class is particularly significant in the light of the very different pattern among staff directly recruited to the scientific officer class and the professional works group. Here there has been a steady and definite increase in the proportion from social classes III to V (the lower middle, and working classes) from 32% before the war to 49% in the 1960's in the case of the scientific officer class, and from 19% to 39% of the professional works group over the same period (Table 3.19). The trend among university teachers has also been towards the appointment of staff with a working class background.³ The question therefore arises as to why a similar movement is not found in the administrative class. We shall be

¹ Moreover, the figures about promotees in Table 3.19 refer to the promotee's year of establishment in the Civil Service and not year of entry into the administrative class for which data were not available. It is, however, a reasonable assumption that promotees most recently established in the Civil Service have also been promoted into the administrative class most recently.

² These figures, unlike the figures derived from our sample, exclude those directly recruited to the principal grade.

³ A. H. Halsey and M. Trow, *British Academics*, Faber and Faber (forthcoming).

Table 3.19: Direct entrants and promotees to the administrative class, and direct entrants to the scientific officer class and works group of professional classes: Social class origins (father's occupation) by year of permanent establishment to the Civil Service

Father's occupation	Administrative class						Scientific officer class				Works group of professional classes			
	Direct entrants			Promotees			Direct entrants				Direct entrants			
	Established			Established			Established				Established			
	Before 1940	(Appointed) 1940—1945	1946—1950	1951—1955	1956—1960	1961 and after	Before 1940	(Appointed) 1940—1945	1946—1960	1961 and after	Before 1940	(Appointed) 1940—1945	1946—1960	1961 and after
I and II Higher and intermediate professional and managerial	77	76	79	64	80	85	46	55	59	61	68	62	52	49
III (i) Skilled non-manual	15	11	6	18	10	3	15	—	12	16	16	9	11	14
III (ii), IV and V Skilled manual, semi manual, and unskilled	7	13	13	18	9	10	36	42	29	22	16	25	37	35
Other	—	1	1	—	—	1	4	3	—	—	—	3	—	2
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(51)	(60)	(78)	(35)	(36)	(88)	(117)	(14)*	(26)	(12)	(46)	(79)	(134)	(66)
											(127)	(60)	(232)	(76)

* In this column and a number of others throughout the survey, the percentages do not appear to "fit" the (N) to which they apply. For example, 3% of 14 is considerably less than 1. The apparent discrepancy arises because the sample number on which the percentage is based is weighted, whereas the sample number denoted by (N) is not.

Table 3.20: Administrative, scientific officer and legal class, the works group of professional classes, and managers "who have risen from the bottom": Social class origins (father's occupation)

Father's occupation	Administrative class						Managers who have "risen from the bottom" ² (1954/5)	Legal class	Scientific officer class			Professional works group		
	Direct entrants	Transfers	Promotees	All	Under Secretary and above Promotees				Direct entrants	Promotees	All ³	Direct entrants	Promotees	All ³
					1939	1950								
	%	%	%	%	%	%	%	%	%	%	%	%	%	
I Higher professional and managerial	29	12	10	21	17	10	36	16	10	15	17	14	16	
II Intermediate professional and managerial	50	55	40	46	48	35	45	39	34	39	48	29	44	
III (i) Skilled non-manual	9	6	14	10	28	47	32	7	12	14	12	8	9	
III (ii) Skilled manual	8	18	23	13				9	26	32	27	18	40	24
IV and V Semi and Unskilled	3	8	11	6	3	8	53	2	6	10	7	6	6	
Other	1	1	3	3	3	—		1	1	1	—	2	2	1
Total	100	100	100	100	100	—	100	100	100	100	100	100	100	
(N)	(348)	(54)	(169)	(571)	(29)	(77)	(441)	(351)	(325)	(63)	(403)	(495)	(104)	(666)

1 R. K. Kelsall, *Higher Civil Servants in Great Britain*, p. 153.

2 Calculated from figures on p. 173 of R. V. Clements, *op. cit.*

3 Includes transfers of whom there were too few for separate analysis.

able to look at this question in more detail in the light of our information on educational background.

In Table 3.20 we compare the social origins of direct entrants, promotees and transfers in the administrative class with those of direct entrants and promotees in the scientific officer class and professional works group, and the equivalent of promotees in British industrial management. In the same table we can also compare the social class background of promotees in the administrative class of 1967 with that of promotees among under secretaries and above in the administrative class of 1939 and 1950. The figures leave no doubt that promotion (and transfer) brings in a considerable working class element. Thirty-four per cent of promotees are the children of manual workers compared with 11% of direct entrants. Using the difference between the social class origins of the whole class and of promotees as a yardstick, promotion widens the social base of the administrative class as much as it does that of the engineers, architects and surveyors in the works group and to a greater degree than for the scientific officer class.

Nevertheless it is still the case that the administrative class obtains proportionately more middle class promotees than its scientific and technical counterparts and figures from Kelsall's study reinforce our suggestion that the *trend* in promotion favours the children of the middle class. Moreover, promotion is much more an upward channel of social mobility within industry than in central administration: 85% of managers promoted "from the ranks" are lower middle or working class by birth compared with 48% of administrative class promotees. However, promotion as an avenue of upward mobility is very similarly limited in the French senior Civil Service (Table 3.21).

Table 3.21: Administrative class, United States Federal Service¹ and Senior French Civil Service²: Social class origins (father's occupation)

Father's occupation	Administrative class			United States Federal Service ¹	Senior French Civil Service (1962/3) ²		
	Direct entrants	Promotees	All ³	(1959)	Graduates of the E.N.A.	Promoted officials	Both
	%	%	%	%	%	%	%
I Higher professional and managerial	29	10	21	27	56	27	49
II Intermediate professional and managerial	50	40	46	34	24	20	23
III (i) Skilled non-manual	9	14	10	14	7	} 40	10
III (ii) Skilled manual	8	23	13	18	10		9
IV Semi and V unskilled	3	11	6	4	—		1
Other	1	3	3	2	2	13	8
Total	100	100	100	100	100	100	100
(N)	(348)	(169)	(571)	(10,851)	(x)	(x)	(x)

¹ Calculated from W. L. Warner *et al.*, *The American Federal Executive*, p.29

² Calculated from H. Parris, *loc. cit.*

³ Includes transfers of whom there were too few for separate analysis.

It is important to know whether the social class background of the administrative class is merely a consequence of the educational system, reflecting the class composition of graduates and similar to that of occupations and professions

competing for similarly educated recruits. From this point of view it is difficult to be certain whether the class receives its "fair share" of working class and middle class recruits (Table 3.22). First, the proportion of the class whose fathers were in high administrative, executive and professional occupations is exactly the same as the proportion of the general population of similar age and in jobs of similar social standing. Managers in industry have a similar social class background (managerial trainees may be compared with direct entrants). Only in comparison with university teaching staff is there an indication that the administrative class is recruiting disproportionately from middle class graduates. Seventy-nine per cent of direct entrants were born into social classes I and II compared with 60% of all university teachers or of those in arts and social science faculties only. Even the figure for the whole class which covers the many non-graduates among promotees, is higher—67% were born in social classes I and II as compared with 60% of all university teachers.

The comparison with university teachers is particularly worth further consideration since both the administrative class and the universities seek to attract and recruit those with high academic qualifications. Both therefore recruit from the same university undergraduate population which was and is still predominantly middle-class (i.e. 59% of the 1961/2 graduates were born in social classes I and II). Yet while university teachers (both in arts and social sciences faculties and also considered as a whole) fairly precisely reflect the social composition of the undergraduate body from which they are drawn, the members of the administrative class are much more predominantly middle-class. There is *no* similar contrast between on the one hand university teachers in science and technology faculties and, on the other, the graduates directly recruited to the scientific officer class and the professional works group. In these classes the members closely resemble, in terms of social origin, the university teachers in science and technology and the student body from which they are all drawn. Moreover, figures not included in our survey indicate only negligible differences in the social background of students in various fields of study. Thus we need to consider why the administrative class is so different in its social composition both from university teachers and also the student body from which both groups are drawn. We return to this question later in this chapter.

Considerable caution is required in any comparison with the social composition of senior Civil Services in other countries because of different schemes for the classification of occupations used in their study and because of the greater predominance of certain occupations abroad, especially in agriculture, which are notoriously difficult to place in a social class. Nevertheless, a crude attempt at a comparison of the social composition of the French, United States and British Civil Services is made in Table 3.21. The figures suggest that the British concentration of recruitment from the middle classes is not exceptional. The proportion of graduates from the Ecole Nationale d'Administration with middle class antecedents is almost identical to that of administrative class direct entrants, (although relatively more of the former are the children of fathers in the professions or Civil Service than in business): the percentage born into the middle classes for the United States Federal Service is slightly lower.

The administrative class is by popular reputation a social as well as an administrative elite *within* the Civil Service. An examination of the social

Table 3.22: Administrative class, undergraduates 1961/2¹, university teachers², managers and directors in British industry, and commerce^{3,4} and British population born 1910-1929 and now in professional, high administrative, managerial and executive occupations⁵: Social class origins (father's occupation).

Father's occupation	Administrative class						University teachers				British industry			British population in social class I and II ⁵		
	Upper grades		Lower grades		All	Direct entrants	Undergraduates 1961/2 ¹	All (1966)	Professors, senior lecturers and readers	Lecturers and assistant lecturers	in arts and social science faculties	Top managers ³ (1954/5)	Managerial trainees ³ (1954/5)	Directors ⁴ (1965)	Born 1910 to 1919	Born 1920 to 1929
	Men	Women	Men	Women												
I Higher professional and managerial	22	24	21	25	21	29	18	20	21	18	22	72	81	50	67	67
II Intermediate professional and managerial	45	54	47	51	46	50	41	40	43	39	38					
III (i) Skilled non-manual	12	6	10	8	10	9	12	32	28	35	31	25	19	40	29	28
III (ii) Skilled manual	13	4	14	10	13	8	18									
VI and V Semi and unskilled	5	6	7	6	6	3	7	6	6	6	6	3	—	10	4	6
Other	2	6	1	1	3	1	4	2	2	2	3	—	—	—	—	—
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(211)	(50)	(196)	(114)	(571)	(348)	(3,725)	(1,401)	(539)-	(781)	(584)	(182)	(68)	(2,378)	(55)	(36)

¹ Report of the Committee on Higher Education (Robbins Report) Appendix Two (B), p. 4.

² A. H. Halsey and M. Trow, *op. cit.*

³ Calculated from R. V. Clements *op. cit.*, pp. 173, 177. Managerial trainees' are defined as those managers "recruited for definite schemes of training for management, open to all to apply for" *ibid.*, p. 25.

⁴ The Director, April, 1966

⁵ D. V. Glass and J. R. Hall, "Social Mobility in Great Britain: a study of intergenerational changes in status", in David Glass (ed.), *Social Mobility in Britain*, p. 187, Routledge and Kegan Paul, London, 1954.

composition of other higher classes recruiting graduate or professionally qualified staff puts this belief in proper perspective (Table 3.20). The administrative class is less middle class in background than the legal class (67% as against 81%) but substantially more so than the scientific officer class. However, the difference between the legal and administrative classes is almost totally eliminated if only direct entrants to the administrative class are considered (virtually all members of the legal class are direct entrants); 81% of the legal class come from social classes I and II compared with 79% of the direct entrants to the administrative class. The relative number of direct recruits to the scientific officer class and professional works group from the manual classes (social classes III(ii), IV and V) is about three times that among direct entrants to the administrative and legal classes; though, as we have said, there are only negligible differences in the social class background of science students as compared with those in arts faculties. And the professional works group has the same proportion of direct entrants from the manual classes as the scientific officer class.

In Tables 3.23 and 3.24 we analyse the social composition of staff recruited to the administrative class by different methods over a period of years.¹ The tables give some explanation of the pattern of greater social exclusiveness we have noted in post-war recruitment to the administrative class as compared with the scientific officer class, the professional works group and university teachers. The following points also emerge:

- (a) There is no significant difference in social class for recruits entering by the post-war reconstruction competitions and those entering by the open competitions.
- (b) Between 1948 and 1967 those entering by open competitions through Method I (which is mainly by written examination) were consistently more likely to be of working class origin (i.e. social classes III–V) than Method II entrants (which is mainly by extended interview) over five consecutive groups of years. However, the gap between the two methods began to narrow in 1961 as Method I increasingly recruited candidates from social classes I and II.
- (c) Except for the years 1966–67, for which the numbers are very small, entrants via the limited competitions have been increasingly middle-class in background (68% of those recruited to the class by limited competition in 1961–65 as against 31% of those who entered this way in 1948–55).
- (d) Table 3.24 shows that between 1948 and 1965 *candidates* for both Methods I and II of the open competitions came increasingly from the “higher” social classes. Only in 1966–67 was there a reversal in the trend of applicants. Moreover, the pattern of success throughout this period broadly reflects the pattern of the applicants. Thus as far as direct entrants to the administrative class are concerned the social trends in recruitment to which we have been drawing attention are very largely explained by the social pattern of the applicants. However, it is still important to note that a comparison between candidates and successes in each of the four periods of years distinguished reveals that the middle class form a slightly but consistently higher proportion of

¹ These analyses are based on information supplied by the Civil Service Commission. They are not a sample survey but cover *all* direct entrants.

successes than candidates. Dodd found the same pattern in his analysis of candidates for the open competition between 1961 and 1964.¹

- (e) The fact that middle-class candidates have the better chance of success is illustrated from a rather different angle in Table 3.24. Thus, for example, in Method II between 1948 and 1956 among middle class candidates there was a 1:12 success ratio, while for the very much smaller number of candidates from social classes III-V there was a success ratio of 1:19.6. Until most recently the gap between these success ratios has mostly tended to narrow over the years. Thus, it was 1:8 for middle-class candidates between 1957 and 1963 compared with 1:14.7 for the lower classes; and for 1964-65 the middle class success ratio was actually not as good as that for the lower classes (i.e. 1:5.5 compared with 1:4.5 for the lower classes). For 1966-67, however, the figures moved back in favour of the middle class: the success ratio for the higher classes was 1:5.3 and 1:8.2 for the lower classes. The corresponding figures for candidates and successes via Method I also show that middle class candidates have better chances of success than their working class competitors. But here, instead of the gap in the success ratio between the classes mostly narrowing it has in fact mostly widened. Thus in Method I between 1948 and 1956 the ratio of successes among middle class candidates was 1:5.1 and the corresponding figure for candidates from social classes III-V was 1:6.2. For the period 1956-63, however, the gap had widened with a middle class success ratio of 1:5.2 compared with a working class success ratio of 1:7.0. This trend was continued in the 1964-65 figures when the middle class ratio was 1:4.2 while the working class figure had become 1:10.6. For 1966-67, however, the gap narrowed; the middle class figure was 1:14.6 while the working class ratio was 1:15.4.
- (f) The success ratios given at (e) above make it clear that in the whole period from 1948 to 1967 working class candidates from the universities competing with their middle class contemporaries have been less at a disadvantage in Method I than in Method II. Since 1948, however, and except for the period 1964-65, those of middle-class origin have had a better chance of success than those from the working classes in both methods of entry.

GENERAL EDUCATIONAL BACKGROUND

In Table 3.25 the educational qualifications of the administrative class are compared with those of the French, Canadian and United States senior Civil Services, and of managers and directors in British industry.

About three-quarters of the administrative class are graduates, university qualifications being concentrated slightly more in the upper grades. The French and United States senior Civil Services, but not the Canadian, appear to employ an even greater proportion of graduates. Data collated from surveys of British industry suggest that non-graduates are far more prominent in the senior ranks

¹ C. H. Dodd, "Recruitment to the Administrative Class 1960-64", *Public Administration*, XLV (Spring 1967) pp. 55-80. This article should also be consulted for its detailed investigation of success ratios in the open competition according to school and university background.

Table 3.23: *Administrative class: Method of entry to the assistant principal grade¹ by year of entry, by social class origins (father's occupation)*

Father's occupation	Post-war recon- struction competition	Open competition												Limited competition						
		1948-50		1951-55		1956-60		1961-65		1966-67		1948-67		1948 to 1950	1951 to 1955	1956 to 1960	1961 to 1965	1966 1967	All	
		Method		Method		Method		Method		Method		Method								
		I	II	I	II	I	II	I	II	I	II	I	II							I
I Higher professional and managerial	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
II Intermediate professional and managerial	33	35	36	34	42	28	52	35	49	22	37	34	46	41	9	7	10	23	22	13
III (i) Skilled non-manual	17	35	34	29	18	31	10	20	15	28	18	28	16	21	27	39	29	23	44	31
III (ii) Skilled manual																				
IV Semi and unskilled	7	16	10	19	3	12	4	5	3	3	5	13	4	7	40	29	29	7	11	26
Other	1	—	—	1	3	2	—	1	—	3	—	1	—	—	2	—	—	3	11	2
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(693)	(127)	(50)	(186)	(140)	(123)	(157)	(125)	(327)	(37)	(226)	(598)	(900)	(1,498)	(45)	(28)	(21)	(31)	(9)	(134)

Source: Civil Service Commission
 1 Nomination and 'other' methods are omitted for lack of data.

Table 3.24: *Candidates and successes in the open competition to the assistant principal grade of the administrative class, 1948-67: Social class origins (father's occupation)*

Father's occupation	Year	Method I				Ratio successes ¹ / candidates	Method II				Ratio successes ¹ / candidates
		Candidates		Successes ¹			Candidates		Successes ¹		
		%	(N)	%	(N)		%	(N)	%	(N)	
I and II Higher and intermediate professional and managerial	1948-56	69	1,188	74	234	1: 5.1	76	2,087	83	173	1:12.0
	1957-63	74	693	78	132	1: 5.3	77	2,053	87	256	1: 8.0
	1964-65	77	214	89	51	1: 4.2	81	682	79	124	1: 5.5
	1966-67	66	351	67	24	1:14.6	67	913	77	174	1: 5.3
	1948-67	71	2,446	76	441	1: 5.5	76	5,735	82	727	1: 7.5
III-V Skilled manual and non-manual, semi and unskilled	1948-56	31	526	26	85	1: 6.2	24	646	16	33	1:19.6
	1957-63	24	225	19	32	1: 7.0	21	559	13	38	1:14.7
	1964-65	19	53	9	5	1:10.6	18	153	22	34	1: 4.5
	1966-67	32	169	31	11	1:15.4	31	427	23	52	1: 8.2
	1948-67	28	973	23	133	1: 7.3	24	1,785	18	157	1:11.4

¹ Including a few who declined appointment.

Note:

Calculated from figures provided by the Civil Service Commission: data up to 1963 appears in *Recruitment to the Civil Service*, Sixth Report from the Estimates Committee 1964-65, p.31, H.M.S.O., London, 3rd August, 1965.

Table 3.25: Administrative class; the French¹, Canadian², and United States^{3 4} Senior (Federal) Civil Services; and managers⁵ and directors⁶ in British industry: Highest educational qualification

Highest qualification	Administrative class				Entrants to the E.N.A. in 1959	Canadian Federal Civil Service ² (1960)	United States Federal Service		British industry		
	Upper grades		Lower grades				Programme managers ³ (1963)	Federal executives ⁴ (1959)	Top managers ⁵ of 4 large firms (1954/5)	Managerial trainees ⁵ (1954/5)	Directors ⁶ (1965)
	Men	Women	Men	Women							
University higher and first degree or Dip. Tech.	%	%	%	%	%	%	%	%	%	%	
	79	90	73	75	93	79	83	81	45	76	15
Membership of a professional institution or Univ. diploma	2	—	4	—	—	4	16	19	55	24	9
All other qualifications	18	10	21	23	7	17	100	100	100	100	76
No qualification	1	—	2	2	—	100	100	100	100	100	100
Total	100	100	100	100	100	100	100	100	100	100	100
(N)	(211)	(50)	(196)	(114)	(60)	(301)	(147)	(10,851)	(110)	(68)	(6,000)

¹ Calculated from F. F. Ridley and J. Blondel, *op. cit.*, p.38.

² C. E. Caiden, *op. cit.*, p.328.

³ J. J. Corson and R. S. Paul, *op. cit.*, p.166.

⁴ W. L. Warner, *et al.*, *The American Federal Executive*, pp.115, 116.

⁵ R. V. Clements, *op. cit.*, pp.174, 184.

⁶ *The Director*, January 1965. The 'directors' are all members of the Institute of Directors.

of industry (directors and "top" managers) than in central government administration, although a similar proportion of 76% who have degrees is found among managerial trainees.

Educational qualifications before entry

The highest qualifications held by members of the administrative class on first entering the Civil Service appear in Table 3.26. Seventy-one per cent were graduate entrants to the Civil Service and over a quarter possessed only "A" level, the Higher National Certificate, or below. The figure for graduate entrants is lower than that of the scientific officer class but above the other two higher classes (Table 2.5). The great majority of the non-graduates are promotees, as Table 3.26 also shows. Over three-quarters of the promotees held only "A" levels or their equivalent or below on joining the Civil Service and only 12% were graduates compared with 94% of the direct entrants. Thus class to class promotion for non-graduates is far more common into the administrative than the scientific officer class (Table 10.41).

Table 3.26: Administrative class: Highest educational qualification obtained before entry into the Civil Service

Highest qualification before entry	Upper grades		Lower grades		All	Direct entrants	Transfers	Promotees
	Men	Women	Men	Women				
	%	%	%	%	%	%	%	%
University higher degree	24	18	17	14	19	27	35	1
University first degree	48	68	48	53	52	67	52	11
Membership of a professional institution	2	—	3	—	2	2	5	2
"A" level(s)	—	—	2	2	1	—	—	3
Higher National Certificate or Higher School Certificate	15	6	14	11	14	2	2	45
"O" level(s)	10	8	12	17	10	2	6	31
All other qualifications	—	—	1	1	—	—	—	—
No qualification	1	—	4	3	2	—	—	7
Total	100	100	100	100	100	100	100	100
(N)	(211)	(50)	(196)	(114)	(571)	(348)	(54)	(169)

Some differences in pre-entry educational qualifications between the four sample groups are of note. There is a relatively greater number of non-graduates in the lower grades mainly because promotees, who are mostly non-graduate, enter the principal, or occasionally assistant principal grades at a later age than direct entrants. More interesting is the slightly disproportionate concentration of staff with a post-graduate degree in the upper grades. Table 3.27 shows that the explanation does not lie in greater "career success" among members with post-graduate qualifications, but partly in a decline in the recruitment of direct entrants with higher degrees, from 38% in the 1940's to 14% in the 1950's. There was a recovery to 25% in the 1960's. This decline is rather surprising in

the light of post-war growth in the number of graduate students¹ and in the rise in the recruitment of British academics in arts and social science faculties with higher degrees.² However, a similar fall in recruits with higher degrees between 1940 and 1960 is recorded in a study of administrators in local education authorities.³

Table 3.27: *Direct entrants to the administrative class: Year of permanent establishment by highest educational qualification obtained before entry into the Civil Service*

Highest qualification before entry	Established					
	Before 1940	(appointed) 1940—1945	1946—1950	1951—1960	1961 and after	All
	%	%	%	%	%	%
University higher degree	20	38	38	14	25	27
University first degree	80	52	56	82	62	67
All other and no qualifications	—	10	6	4	12	6
Total	100	100	100	100	100	100
(N)	(51)	(60)	(78)	(71)	(88)	(348)

In Table 3.28 we distinguished between those first established in the Civil Service after the war and those established before 1940 or appointed during the war, and further subdivide the two groups according to their highest pre-entry qualifications. By looking at their distribution between the upper and lower grades we obtain a very crude measure of their relative "career success". Differences in the proportions of graduates with higher or only first degrees are not important but non-graduates (mainly because most are promotees) have much less chance of reaching the upper grades. 46% of non-graduates established before 1940 or appointed during the war and 16% of those established after the war are now in the upper grades compared with 61% and 31% respectively of the whole class.

The relation between the social and educational background of recruits to the administrative class is particularly interesting in the context of the preceding figures. A profile of the highest educational qualifications obtained by members of the administrative class before joining the Civil Service does not differ much if men and women, or if upper and lower grades are compared (Table 3.26). However, if a comparison between members of different social class origins is

¹ The number of British graduate students (excluding those in Education) has risen from 6% to 14% of all students between 1938/9 and 1961/2, and from 5% to 11% for graduate students in arts faculties (excluding Education). See the *Report of the Committee on Higher Education (Robbins Report)* Appendix Two (A), pp. 40–42.

² Forty-six per cent of university teachers appointed to arts and social science faculties between 1959–61 possessed higher degrees. See the *Report of the Committee on Higher Education (Robbins Report)* Appendix Three, p. 178.

³ From 22% to 12%. See Margherita Rendel, *op. cit.*, p. 6.

Table 3.28: Administrative class: Grade distribution according to year of permanent establishment in the Civil Service and to highest educational qualification obtained before entry into the Civil Service.

Present grade	Established before 1940 and appointed 1940-45			
	University higher degree	University first degree	All other qualifications including none	All
	%	%	%	%
Upper grades	70	75	46	61
Lower grades	30	25	54	39
Total	100	100	100	100
(N)	(40)	(106)	(128)	(274)

Established after 1945				
	%	%	%	%
Upper grades	46	30	16	31
Lower grades	54	70	84	69
Total	100	100	100	100
(N)	(68)	(185)	(44)	(297)

made, considerable differences emerge (Table 3.29). Those of working class origins (the Registrar General's social classes III to V) less often have higher degrees and are much more frequently qualified at a sub-degree level, which we know to be least associated with "career success". Under half of the members born into the manual classes possessed university qualifications on joining the Civil Service compared with over three-quarters of those with middle class background. Thus the avenues of entry into the administrative class of the Civil Service are such that those with working class origins tend to arrive with lower educational qualifications and hence with poorer prospects of promotion into the higher grades.

School leaving age

The administrative class, being mainly graduate, has a median school leaving age of eighteen, and an average of 17.5 (Table 3.30). This average is higher than that for the legal class (17.3) and professional work group (16.6) but below that of the scientific officer class (18.0). Within the class there are no significant differences between upper and lower grades or between men and women, but promotees, not surprisingly, left school on average earlier than their colleagues. Thirty-eight per cent were out of school at sixteen compared with 5% of direct entrants and 15% of the whole class. This still leaves a majority of promotees (62%) attending school at seventeen or even later.

Table 3.29: Administrative class: Social class origins (father's occupation) by highest educational qualifications obtained before entry into the Civil Service

Highest qualification before entry	I Higher professional and managerial	II Intermediate professional and managerial	III (i) Skilled non-manual	III (ii) Skilled manual	IV and V Semi and unskilled	All ¹
	%	%	%	%	%	%
University higher degree	31	31	14	11	8	19
University first degree	51	45	48	32	42	52
Membership of a professional institution	—	3	—	4	—	2
"A" level(s)	—	—	5	2	2	1
Higher National Certificate or Higher School Certificate	6	12	15	30	19	14
"O" level(s)	7	7	17	17	26	10
All other qualifications	1	—	—	—	—	—
No qualification	3	1	—	4	4	2
Total	100	100	100	100	100	100
(N)	(128)	(274)	(69)	(56)	(35)	(571)

¹ Includes staff whose social class origins were unknown or unclassifiable, and of whom there were too few for separate analysis.

Table 3.30: Administrative class and directors in British industry¹: School leaving age

School leaving age	Administrative class								Directors in British industry (1951)
	Upper grades		Lower grades		II	Direct entrants	Transfers	Promo- tees	
	Men	Women	Men	Women					
	%	%	%	%	%	%	%	%	%
14 and under	—	—	1	1	1	—	—	3	11
15	1	2	2	1	1	1	—	2	8
16	11	10	15	18	13	4	12	33	12
17	30	34	22	29	26	} 95	} 88	} 62	} 57
18	43	46	55	43	49				
19 and over	15	8	6	8	10				
Total	100	100	100	100	100	100	100	100	100
(N)	(211)	(50)	(196)	(114)	(571)	(348)	(54)	(169)	(1,243)
Average school leaving age	17.6	17.5	17.6	17.4	17.5	X	X	X	X

¹ G. Copeman, *op. cit.*, p.103. The figures record, in fact, the year directors started full-time work. Assuming no unemployment between leaving school and starting work, the figures can be taken to refer to school leaving age.

Copeman's study of directors in large companies indicates that recruits to big business leave school considerably earlier than recruits to top administration: 41% of directors left at sixteen or earlier compared with 12% of the upper grades of the administrative class.

Data on school leaving age reinforce the correspondence we have found between an advanced education and "superior" social background in the administrative class. Of the minority in the class who were out of school by the

Table 3.31: Administrative class: School leaving age by social class origins (father's occupation)

Father's occupation	Administrative class	
	Left school at	
	16 and under	17 and over
I Higher professional and managerial	% 10	% 24
II Intermediate professional and managerial	29	51
III (i) Skilled non-manual	13	10
III (ii) Skilled manual	31	10
IV and V Semi and unskilled	14	5
Other	3	1
Total	100	100
(N)	(91)	(480)

Table 3.32: Administrative class: School leaving age by highest educational qualification obtained before entry into the Civil Service

Highest qualification before entry	Left school at		All
	16 and under	17 and over	
	%	%	%
University higher degree	6	22	20
University first degree	23	54	49
Higher National Certificate, Higher School Certificate, "A" level(s) and "O" level(s)	59	19	26
All other qualifications	3	3	3
No qualification	10	1	2
Total	100	100	100
(N)	(91)	(480)	(571)

age of seventeen only 39 % were born into the middle classes compared with 75 % of those still attending school at seventeen or later. For each of the five social classes distinguished, the higher the class the more likely that its members left school at seventeen or later. The pattern is of course, a reflection of social selection in the British educational system (Table 3.31).

As would be expected, early school leavers (at sixteen or before) contribute disproportionately to the non-graduate section of the class (Table 3.32). Nevertheless it should be noted that 29 % of them (and 41 % of those in the upper grades) later obtained a degree, or even a higher degree.

School attended

The type of school last attended by the administrative class both of previous years and today is set out in Table 3.33, together with comparable information for the other higher classes, and directors and top managers in British industry.

Practically all the class attended a selective secondary school, a majority in the private or semi-private sector. In the class as a whole the proportion from fee paying schools and direct grant schools has declined steadily since before the war and the early 1950's, and that from maintained grammar schools has increased. Thus in 1933-39 four times as many members of the class went to fee paying schools and direct grant schools as to maintained schools; in 1967 the ratio was seven to five.

However, the class is still more exclusively educated than either the scientific officer class or the professional works group, although less so than the legal class. Forty-two per cent of the administrative class were educated in the public sector compared with 62 % of the professional works group and 63 % of the scientific officer class, but only 28 % of the legal class. Moreover, it is more common for L.E.A. non-selective schools to provide the holders of top posts in industry than in the Civil Service, although public and other fee paying schools also figure slightly more among the former.

Within the class, differences in schooling appear between upper and lower grades and between men and women. Fee paying and boarding schools contribute a larger proportion of the upper grades, and maintained grammar schools relatively more of the lower grades. Women are disproportionately educated at direct grant schools. Whether the difference in school background between upper and lower grades reflects trends in recruitment, class to class mobility, or varying "career success" according to school attended, is investigated below.

In Table 3.34 we distinguish the school background of direct entrants, transfers and promotees and compare it with that of their equivalents in the administrative class of 1950, in the professional works group and scientific officer class, and in British industry.

Twice as high a proportion of promotees as of direct entrants to the administrative class were schooled in the public sector. Promotees are slightly concentrated among the principal and assistant principal grades, and thus part of the explanation for the higher proportion of staff in the lower grades educated in L.E.A. grammar schools lies in the school background of promotees. A comparison with promotees in the administrative class in 1950 indicates in addition that promotees have increasingly come from L.E.A. schools, and this will also account for the different school background of upper and lower grades, and the relative fall in the number of members attending direct grant and fee paying schools.

Table 3.33: Administrative, scientific officer, and legal classes and professional works group; managers² and directors³ in British industry: Type of full-time school last attended

Type of school	Administrative class										Legal class	Professional works group	Scientific officer class	British industry	
	1939-1952 ¹					1967								Directors ² (1965)	Top managers in four large firms ³ (1954/5)
	Under secretaries and above	Lower grades 1933-39	Upper grades 1950	Lower grades 1949-52		Upper grades		Lower grades							
				Men	Women	Men	Women	Men	Women						
Secondary modern, technical and comprehensive	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
	21	—	33	—	—	3	1	3	1	2	6	29	6	17	
		19		26	35	32	46	37	40	22	33	57	31	32	
		78		81	73	21	28	14	34	19	11	13			15
						42	34	35	25	37	56	23			21
1	2		1			6	2	4	2	3	2	5			6
Schools abroad and other	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Total	(332)	(323)	(1,045)	(223)	(211)	(50)	(196)	(114)	(571)	(666)	(403)	(2,378)	(110)	(110)	
Day school	70	62	77	69	71	72	77	79	76	87	87	87	X	X	
Boarding school	30	38	23	30	29	28	23	21	24	13	13	13	X	X	
Total	100	100	100	100	100	100	100	100	100	100	100	100	X	X	
(N)	(332)	(323)	(1,045)	(223)	(211)	(50)	(196)	(114)	(571)	(666)	(403)	(2,378)	(110)	(110)	

1 R. K. Kelsall, *Higher Civil Servants in Great Britain*, pp. 127-129. Figures for the lower grades refer to open competition entrants only.

2 *The Director*, April, 1966.

3 R. V. Clements, *op. cit.*, p. 184.

Table 3.34: Direct and indirect entrants to the administrative class, scientific officer class, professional works group and British industrial management³: Type of full-time school last attended

Type of school	Administrative class						Scientific officer class ²		Professional works group ²		British industry ³	
	19501			1967			Direct entrants	Promotees	Direct entrants	Promotees	Managerial trainees (1954/5)	Managers who "have risen from the bottom" (1954/5)
	Under secretaries and above											
	Direct entrants	Transfers	Promotees									
Secondary modern, technical and comprehensive L.E.A. grammar Direct grant Public school and other fee paying Schools abroad and other Total	%	%	%	%	%	%	%	%	%	%	%	%
	20	30	54	—	5	4	16	21	46	1	65	}
		78	65	46	30	58	57	35	25	32	26	
	2		4	—	19	17	15	12	14	11	}	}
		100	100	100	48	19	22	15	27	16		
					2	2	3	—	3	2	7	1
				100	100	100	100	100	100	100	100	
Day school Boarding school Unclassified Total	%	%	%	%	%	%	%	%	%	%	%	%
	63	70	97	66	92	86	95	86	95	X	X	X
	35	26	4	34	8	14	5	14	5	X	X	X
	2	4	—	—	—	—	—	—	—	X	X	X
	100	100	100	100	100	100	100	100	100	X	X	X
(N)	(601)	(69)	(375)	(348)	(169)	(54)	(325)	(63)	(495)	(104)	(68)	(341)

1 R. K. Kelsall, *Higher Civil Servants in Great Britain*, p. 125.

2 There were too few transfers to be analysed separately with any validity.

3 R. V. Clements, *op. cit.*, p. 174.

It is interesting to compare the school background of promotees in the administrative class with those in other higher classes. Notwithstanding the trend since the war, promotees to the administrative class have a peculiarly exclusive school education compared with that of promotees to other higher classes in the Civil Service. For example, a slightly higher proportion attended direct grant, public and other fee paying schools than of promotees in the scientific officer class and professional works group, *despite* the higher standard of qualifications acquired by the scientific officer and experimental officer classes compared with the administrative and executive classes. Moreover, it seems that it is easier for those educated at L.E.A. non-selective schools to be promoted within industry than within central administration.

Table 3.35 deals with direct entrants only. It enables us to compare their present school background and trends in their schooling with that of people in competing occupations, such as local government administration, university teaching and industrial management, as well as with that of the general undergraduate group from which most come.

From Table 3.34 it is evident that direct entrants to the administrative class have enjoyed a more privileged school education than staff directly recruited to the scientific officer class and professional works group. Table 3.35 underlines the relative narrowness of their school background by showing that greater proportions of graduates in local education authorities, the management of a large industrial organisation,¹ and university teachers in arts and social science faculties have been educated at L.E.A. maintained schools. Similarly relatively fewer undergraduates studying for arts and social science degrees attended schools where parents normally paid fees.

Considering the gradual rise in the number of children from L.E.A. grammar schools going to universities, it is surprising that there was no significant increase until 1966 in the proportion of recruits educated in the public sector among direct entrants to the administrative class. The proportion from L.E.A. grammar schools entering between 1961-65 (29%) is the same as that for surviving members established before the war (28%) and considerably less than among war-time direct entrants (46%). Similarly up to the 1950's there was no tendency to increased selection from the schools in the public sector. In these respects there is a contrast in the recruitment pattern in recent years between the administrative class on the one hand and administrators in L.E.A.s and a large industrial firm on the other. In the large industrial firm the proportion of recruits from public and other fee paying schools dropped from 44% among those first appointed between 1956-60 to 36% between 1960-65. Among local education authority graduate administrators the proportion fell from 38% in 1940-59 to 29% in 1960-65. However, in the administrative class the proportion of direct entrants from the public and other fee paying schools increased between the 1950's and 1960's—46% in the period 1951-60 and 50% in 1961-65; and if we add in those from the direct grant schools we find that the administrative class has throughout the 1950's and the first half of the 1960's been receiving a relatively high and stable proportion of those educated in the private sector. Again, by contrast, direct entrants to the professional works group tend to come less and less from public and other fee paying schools and there has been a growth in the

¹ We are indebted to the management of a large industrial undertaking for supplying these figures from their own records.

Table 3.35: Direct entrants to the administrative class, graduate administrators in local education authorities¹, and managers of a large industrial organisation²: Year of recruitment by type of full-time school last attended; Undergraduates³ and university teachers⁴ in arts and social science faculties: Type of full-time school last attended

Type of school	Direct entrants to the administrative class					Graduate administrators in L.E.A.'s ¹			Managers of a large industrial organisation ²				Arts and social science university faculties	
	Established			1961 and after	All	Appointed			Appointed				Under-graduates ³	Teachers ⁴
	Before 1940	(appointed) 1940-45	1946-50	1951-60		Before 1940	1940-59	1960-65	1952-55	1956-60	1961-65	1966-67		
Secondary modern, technical, and comprehensive	2	—	—	—	—	81		71	—	—	1	1	58	51
L.E.A. grammar	28	46	23	33	30	19	62	72	59	40	43	52		
Direct grant	20	8	24	21	19		38	29	15	14	14	8	15	10
Public school and other fee paying	50	42	51	46	48				25	44	36	37	27	22
Schools abroad and other	—	5	2	—	2	X	X	X	1	2	7	3	X	17
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(51)	(60)	(78)	(71)	(88)	(16)	(151)	(92)	(133)	(207)	(224)	(95)	(1,587)	(584)

¹ Margherita Rendel, *op. cit.*, p. 8.

² These figures were supplied at the request of the Fulton Committee by a large industrial organisation. They refer to recruits thought capable of reaching in their middle thirties at least the upper range of middle management, with policy formulation responsibilities and a salary range of £3,000 to £4,500 p.a. Selection procedure is similar to Method II of the open competition to the administrative class.

³ Report of the Committee on Higher Education (*Robbins Report*) Appendix Two (B), p. 8.

⁴ A. H. Halsey and M. Trow, *op. cit.*

direct intake from L.E.A. maintained grammar schools to the scientific officer class.

The stable proportion of direct entrants to the administrative class with a privileged school education is important in the light of contrasting patterns among comparable occupations and higher Civil Service classes, and merits a breakdown of the schooling of direct entrants according to their method of entry (Tables 3.36 and 3.37). Members who came in through the limited competitions are far more likely to have attended L.E.A. maintained schools than entrants by open competition, and especially the post-war reconstruction competition. Within the open competition, successful candidates from day schools and L.E.A. maintained grammar schools came consistently more from Method I between 1948 and 1961.

An analysis of open and limited competition entrants according to the year of entry allows us to trace those routes of entry that most account for the pattern in school background of direct entrants. First it appears that successful limited competition candidates in the 1960's were drawn more from fee paying and direct grant schools than in 1956-60; in view of the small numbers involved, however, this conclusion must be tentative. Secondly, between 1961 and 1965 there was a substantial drop in the proportion of candidates from L.E.A. grammar and from day schools who were successful in Method I of the open competition, which until that date had, as we have noticed, produced a much higher proportion of recruits from these schools than had Method II. However, it should be noted that very recently (1966-67) successes in the open competitions from both methods, but particularly Method II, were drawn in much greater proportion from L.E.A. grammar schools and day schools (44% of Method II successes compared with less than 30% in the years 1948-65).

Finally, in Table 3.37 we compare the school background of candidates and successes for Methods I and II of the open competition for the years 1948-56, 1957-63, and 1964-67. A number of patterns emerge from this comparison:

- (i) Shifts in the school background of candidates over a period of years are reflected in similar shifts in successes.
- (ii) For both Methods, and for each of the three periods of years distinguished, direct grant, fee-paying and boarding schools accounted for a higher proportion of successful than of all candidates.
- (iii) The fact that candidates from direct grant, fee paying and boarding schools have a better chance of success is illustrated from a rather different angle in Table 38. Thus, for example, in Method II between 1948 and 1956 candidates from direct grant, fee paying and boarding schools had a success ratio of 1:9.9 compared with 1:20.9 for those from L.E.A. grammar schools. For 1957-63 public school etc. candidates had a success ratio of 1:8.3 compared with 1:11.0 for L.E.A. grammar schools' pupils. For 1964-65 the public school etc. figure was 1:5.0 compared with 1:6.0 for those from L.E.A. grammar schools. For 1966-67 the figures were 1:4.9 for the public schools etc. and for L.E.A. maintained schools 1:7.2.

The corresponding figures for Method I also show that public school etc. candidates have better chances of success than their L.E.A. grammar school competitors. Thus in Method I between 1948 and 1956 the ratio of success among public school etc. candidates was 1:3.9 compared with 1:6.2 for those from L.E.A. grammar schools.

Table 3.36: Administrative class: Method of entry to the assistant principal grade by year of entry by type of full-time school last attended

Type of school	Open competition												Post-war recon- struction competi- tions	Limited recon- struction competi- tion	Limited competition						
	1948-50		1951-55		1956-60		1961-65		1966-67						1948-67						
	Method		Method		Method		Method		Method		Method				Both						
	I	II	I	II	I	II	I	II	I	II	I	II			I	II					
Secondary modern, technical and comprehensive L.E.A. grammar Direct grant Public school and other fee paying Schools abroad and other Total	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
	43	22	39	21	47	26	25	29	44	44	39	30	34	10	68	62	64	86	61	67	
		53	76	60	79	53	73	74	71	53	55	59	69	65	89	31	38	36	14	39	33
			4	2	1	—	—	1	1	1	3	1	2	1	1	1	1	—	—	—	—
	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Day school Boarding school Total (N)	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
	79	64	87	54	86	59	69	60	75	70	80	62	69	51	95	98	89	95	94	95	
	21	36	13	46	14	41	31	40	25	30	20	38	31	49	5	2	11	5	6	5	
	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	(127)	(50)	(186)	(140)	(123)	(157)	(125)	(327)	(37)	(226)	(598)	(900)	(1,498)	(693)	(117)	(45)	(28)	(21)	(41)	(135)	

Note: Figures provided by the Civil Service Commission.

Table 3.37: Candidates and successes in the open competitions for the assistant principal grade of the administrative class: Year by type of full-time school last attended

Type of school	Method I						Method II					
	1948-56		1957-63		1964-67		1948-56		1957-63		1964-67	
	Candidates	Successes	Candidates	Successes	Candidates	Successes	Candidates	Successes	Candidates	Successes	Candidates	Successes
Secondary modern, technical and comprehensive L.E.A. grammar Direct grant Public school and other fee paying Schools abroad and other Total	%	%	%	%	%	%	%	%	%	%	%	%
	57	49	40	36	46	26	47	31	33	26	46	38
	42	50	59	63	52	73	52	69	66	73	53	61
	1	1	1	1	2	1	1	1	1	1	1	1
	100	100	100	100	100	100	100	100	100	100	100	100
Day school	85	77	74	69	79	72	75	56	66	59	73	67
Boarding school	15	23	26	31	21	28	25	44	34	41	27	33
Total	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(1,720)	(319)	(941)	(169)	(806)	(93)	(2,746)	(208)	(2,649)	(294)	(2,199)	(384)

Note: Figures supplied by the Civil Service Commission: these for 1948-1956 and 1957-63 appear in *Recruitment to the Civil Service*, p. 31.

Supplement to Table 3.37

Type of school	Method I				Method II			
	1964-65		1966-67		1964-65		1966-67	
	Candidates	Successes	Candidates	Successes	Candidates	Successes	Candidates	Successes
Secondary modern, technical and comprehensive L.E.A. grammar Direct grant Public school and other fee paying Schools abroad and other	%	%	%	%	%	%	%	%
	36	13	53	46	34	30	54	44
	63	86	46	53	65	69	45	55
	1	1	1	1	1	1	1	1
Day school Boarding school Total (N)	%	%	%	%	%	%	%	%
	75	72	75	74	69	62	75	70
	25	28	25	26	31	38	25	30
	100	100	100	100	100	100	100	100
	(277)	(57)	(529)	(36)	(843)	(157)	(1,356)	(226)

Table 3.38: Candidates for the open competitions to the administrative class: Success ratios by type of full-time school last attended

Method	Success Ratios							
	Candidates from direct grant, fee paying and boarding schools				Candidates from L.E.A. maintained or aided schools			
	1948-56	1957-63	1964-65	1966-67	1948-56	1957-63	1964-65	1966-67
Method II	1:9.9	1:8.3	1:5.0	1:4.9	1:20.9	1:11	1:6.0	1:6.7
Method I	1:3.9	1:5.1	1:3.6	1:12.9	1:6.2	1:6.3	1:12.2	1:17.2

Note: Calculated from figures supplied by the Civil Service Commission.

For 1957-63 the public schools etc. had a success ratio of 1:5.1 compared with 1:6.3 for the L.E.A. grammar schools. For 1964-65 the public schools etc. had a success ratio 1:3.6 compared with 1:12.2 for grammar schools. For 1966-67 the public schools etc. success ratio was 1:12.9 and the grammar schools 1:17.2.

- (iv) The success ratios given at (iii) above make it clear that over the period 1948-63 those from L.E.A. grammar schools competing with candidates from direct grant, public and fee paying schools had a slightly better chance of success in Method I than Method II. For the period 1964-67, however, those from L.E.A. grammar schools had a better chance of success in Method II. For the whole period 1948-67, however, those from public and direct grant schools have a better chance of success than those from L.E.A. grammar schools in both Methods of entry.
- (v) Except for the period 1964-67 a larger proportion of the candidates from L.E.A. maintained schools were successful in Method I than in Method II.
- (vi) For Method I the proportion of candidates from L.E.A. maintained schools has dropped from 57% to 46%, between the periods 1948-56 and 1964-67, and there has been a larger proportionate fall in successes (from 49% to 26%).
- (vii) For method II there has been a similar decline between 1948-56 and 1957-63 in the proportion of candidates from L.E.A. maintained schools, but this was reversed in the period 1964-67 when both the proportion of these candidates and their successes reverted to the 1948-56 level.
- (viii) Up to 1963 relatively more of the Method II than Method I entrants were educated at direct grant fee paying and boarding schools. The patterns for 1964-67 noted at (vi) and (vii) above mean that for that period relatively more of the Method I than Method II entrants came from fee paying, direct grant and boarding schools.

Although the school background of the upper and lower grades is closely connected with trends in recruitment, there is evidence that it also has some relation to "career success" which differs according to the type of school attended (Table 3.39). Members who went to L.E.A. maintained schools have been less successful than their colleagues from direct grant public and other

Table 3.39: Pre-war direct entrants and open competition entrants in 1945-47 to the assistant principal grade: Grade distribution according to type of full-time school last attended

Present grade	Pre-war direct entrants to assistant principal grade					
	L.E.A. maintained schools	Direct grant	Public and other fee paying schools	Boarding schools	Day schools	All
	%	%	%	%	%	%
Permanent or deputy secretary	18	35	28	28	24	25
Under secretary	43	33	45	44	42	42
Assistant secretary	35	29	23	25	31	29
Principal	4	2	4	3	4	4
Total	100	100	100	100	100	100
(N)	(97)	(48)	(92)	(76)	(161)	(237)

1945-47 Open competition entrants to the assistant principal grade						
Present grade	L.E.A. maintained schools	Direct grant	Public and other fee paying schools	Boarding schools	Day schools	All
	%	%	%	%	%	%
Permanent or deputy secretary	1	—	3	3	1	1
Under secretary	10	21	21	26	12	15
Assistant secretary	76	66	66	63	73	71
Principal	14	14	10	8	14	13
Total	100	100	100	100	100	100
(N)	(144)	(44)	(99)	(61)	(226)	(287)

Source: The table has been compiled from data in a note to the Public Schools Commission by H.M. Treasury, published in Volume 3(2) of this report.

fee paying schools. Boarding school pupils also appear to have a slight advantage over members from day schools.¹

We already know that pre-entry qualifications and school leaving age are correlated with social class origins (Tables 3.29 and 3.31). We should therefore also expect a correlation between school and social class background and this appears in Table 3.40. Over two-thirds of those whose fathers were manual workers attended an L.E.A. grammar school compared with 45% of the whole class and only 15% of those born into social class I. Sixty-four per cent of those born in social class I went to a public or other fee paying school as against 35% of all the class and less than 15% of those with working class antecedents.

¹ However, differences in the career ratings of Method I and Method II entrants from 1948 to 1963 according to the type of school they attended were "extremely small and clearly not significant". (See Tables 1 and 5 of the Supplementary Administrative Class Follow-up published in Volume 3(2) of this report.) But "career ratings" incorporate the present performance and future promise of entrants in addition to the grade they have attained.

Table 3.40: Administrative class: Social class origins by type of full-time school last attended

Type of school	Higher professional and managerial	Intermediate professional and managerial	Skilled non-manual	Skilled manual	Semi and unskilled	All ¹
Secondary modern, technical and comprehensive	%	%	%	%	%	%
L.E.A. grammar	15	46	54	70	67	45
Direct grant	14	16	29	10	23	17
Public school and other fee paying	64	36	17	15	5	35
Schools abroad and other	7	1	—	—	—	2
Total	100	100	100	100	100	100
(N)	(128)	(274)	(56)	(69)	(35)	(571)

¹ Includes staff whose fathers belonged to an unidentifiable or unclassifiable class and of whom there were too few for separate analysis.

We therefore also expect to find some relation between school attended and pre-entry qualifications. From the cross tabulation in Table 3.41 we see that those who were not graduates on entry had disproportionately attended L.E.A. maintained schools. Among the graduates men and women from L.E.A. grammar schools form a relatively larger proportion of those with higher degrees on entry than of those with first degrees only.

Table 3.41: Administrative class: Highest educational qualification obtained before entry in to the Civil Service, by type of full-time school last attended

Type of school	University higher degree	University first degree	Higher National/School Certificate	"O" lev- el(s)	All ¹
Secondary modern, technical and comprehensive	%	%	%	%	%
L.E.A. grammar	—	1	—	2	1
Direct grant	58	31	65	52	45
Public school and other fee paying	12	21	13	17	17
Schools abroad and other	28	47	18	28	35
Total	1	1	3	—	2
	100	100	100	100	100
Day school	%	%	%	%	%
Boarding school	82	67	90	86	76
Total	18	33	10	14	24
	100	100	100	100	100
(N)	(108)	(291)	(72)	(63)	(571)

¹ Includes some staff whose highest pre-entry qualification was "A" level, membership of a professional institution, etc. but whose numbers did not permit valid analysis.

Thus there appear to be three avenues from social class origins through school and educational qualification to the administrative class.

First, a route from middle class origins through direct grant and fee paying schools to a university first degree. This route has been of slightly increased importance for direct entrants since the war. Second, there is a path from working class origins through the L.E.A. grammar schools to sub-degree qualifications which has permitted entry to the administrative class, usually by promotion within the Civil Service. Third, there is a path to post-graduate degrees from a wide range of social origins, through the private or state schools but slightly

wider through the former. These three main socio-educational routes are not, of course, mutually exclusive; all combinations of social origin, type of school and educational qualification are to be found and there are half as many L.E.A. grammar school boys among the direct graduate entry as public and direct grant school pupils, as well as a minority of non-graduates whose secondary schooling was in the private sector.

HIGHER EDUCATION

As we have already seen (Table 3.25) most of the administrative class are graduates. In this section of the chapter we refer only to graduates. Table 3.42 shows the proportions attending different types of institution of higher education for their 1st university first degree. The vast majority took their degrees as full-time students at a university although 10% of the men in the lower grades studied part time. The same table makes it clear that the great majority of the few where part-time students are promotees from the executive and other supporting classes. Sixty-two per cent of promotees studied for their degrees full time but not at a university, compared with 11% of the whole class and 3% of direct entrants.

Table 3.42: *Graduates¹ in the administrative class: Institution of higher education*

Institution of higher education	Upper grades		Lower grades		All	Direct entrants	Transfers	Promotees
	Men	Women	Men	Women				
University full time	91%	94%	87%	90%	89%	97%	97%	38%
University part time	7	4	10	8	11	3	3	62
College of Advanced Technology	1	—	1	—				
Regional College of Technology or similar institution	—	—	1	—				
Other	1	2	1	2	100	100	100	100
Total	100	100	100	100				
(N)	(166)	(45)	(143)	(86)	(440)	(339)	(48)	(53)

¹ Defined as all members possessing a university degree at the bachelor level.

Career success within the administrative class is closely related to higher education (Table 3.43). For example, 82% of graduate members established in the Civil Service before the war who attended a university full time have now reached the rank of assistant secretary or above, compared with 56% of graduates without full time university education, most of whom, being promotees, will have entered the administrative class (though not the Civil Service) later.

It is frequently asserted that Oxford and Cambridge monopolise graduate recruitment to the administrative class. In Tables 3.44 to 3.48 we investigate the university background of the graduates in the administrative class by comparing it with that of other graduates in occupations and Civil Service classes requiring a similar level of education, by examining trends in the university background of graduate recruits, and through an analysis of the different methods by which graduates have entered the class.

Table 3.44 compares the universities attended by administrative class graduates with those of managers in British industry, administrators in local education authorities, university teachers in arts and social science faculties, and the pre-war and contemporary body of undergraduates. Nearly two-thirds of the graduates in the administrative class took their degrees in Oxford or Cambridge, the remainder coming in equal proportions from London, the Scottish, and the other English and Welsh provincial universities. Relatively more women

Table 3.43: Graduates in the administrative class: Grade distribution according to year of permanent establishment to the Civil Service and to institution of higher education

Present grade	Established before 1940		Appointed 1940-45 and established after 1945	
	Attended		Attended	
	university full-time	university part-time and other institutions full or part-time	university full-time	university part-time and other institutions full or part-time
	%	%	%	%
Upper grades	82	56	40	16
Lower grades	18	44	60	84
Total	100	100	100	100
(N)	(82)	(25)	(314)	(19)

than men went to London University; otherwise there are no significant differences between sample groups within the class. The concentration of Oxford and Cambridge graduates is remarkable in the context of both the shrinking proportion of Oxford and Cambridge graduates in the national student population, and the composition of competing graduate occupations in and outside the Civil Service. Only a sample of managers first appointed to their firms as managerial trainees consist of a higher proportion of Oxford and Cambridge graduates. Otherwise, large industrial concerns, university arts and social science departments and local education authorities all recruit relatively more students from London, the Welsh and English provincial universities, than does the administrative class. Moreover, there are far fewer Oxford or Cambridge graduates in the scientific officer class (17%) or professional works group (13%) than in the administrative class (64%) (Table 3.45).

The changing university background of graduate recruits to the class may be seen in Table 3.46 and compared with that for industrial managers and local education authority administrators. There has been a slight fall in the proportion of Oxford and Cambridge graduates directly appointed to the class between the 1950's and 1960's, but the figure (73%) is nearly the same as in the immediate post-war period and considerably higher than during the war (46%). This picture is a long way from matching the drop in the proportion of students graduating from Oxford and Cambridge between 1938-39 (22%) and 1963-64 (14%). However, it is clear that changes in the university background of recruits to industrial management and local government in the 1950's and 1960's have been similar to those noted for the administrative class—though there are two big differences which it is important to emphasise in this context. First, as we have already noted, since the war local government and industrial management have both been recruiting a much smaller proportion of their graduates from Oxford and Cambridge than has the administrative class. Secondly, the decrease in the

Table 3.44: *Graduates in the administrative class, in British industrial management^{2,3} and local education authorities⁴, and university teachers⁵ and undergraduates⁶ in arts and social science faculties: University attended*

	Administrative class				All	British industry			Graduate administrators in L.E.A.s (1967)	University teachers in arts and social science faculties ⁵ (1962)	Undergraduates (all faculties) ⁶ in arts and social science	
	Upper grades		Lower grades			Managerial trainees ² (1954/5)	Top managers ² (1954/5)	Managers of a large industrial organisation ³ (recruited 1952-67)			1938/9	1963/4
	Men	Women	Men	Women								
University	%	%	%	%	%	%	%	%	%	%	%	
Oxford and Cambridge	64	56	66	47	64	82	55	44	38	44	22	14
London	11	27	3	21	9			12	18	19	26	19
Welsh and English provincial	7	2	10	11	8			29	40	23	32	50
Scottish	9	9	8	11	9	18	45	10		8	20	17
Irish and foreign	2	—	1	2	1			6	4	5	X	X
Other	8	7	13	11	10							
Total	100	100	100	103 ¹	100	100	100	100	100	100	100	100
(N)	(166)	(45)	(143)	(85)	(439)	(51)	(49)	(659)	(788)	(1,117)	X	X

¹ Total adds up to over 100% because a few members attended more than one university before obtaining their 1st university first degree.

² Calculated from figures in R. V. Clements, *op. cit.*, pp. 174, 184.

³ Figures supplied at the request of the Fulton Committee by a large industrial organisation.

⁴ Calculated from figures in Margherita Rendel, *op. cit.*, p. 12.

⁵ Report of the Committee on Higher Education (Robbins Report) Appendix Three p. 36.

⁶ Report of the Committee on Higher Education (Robbins Report) Appendix Two (A) p. 18.

Table 3.45 Graduates in the administrative and scientific officer classes and the professional works group: University attended¹

University	Administrative class				Scientific officer class			Professional works group	
	Direct entrants	Transfers	Promotees	All	Direct entrants	Promotees	All ²	Direct entrants	All ³
	%	%	%	%	%	%	%	%	%
Oxford and Cambridge	74	43	17	64	16	20	17	15	13
London	8	15	5	9	26	28	24	23	24
Welsh and English provincial	6	21	13	8	38	20	33	28	29
Scottish	8	18	2	9	14	—	12	15	12
Irish and foreign	1	3	—	1	3	—	3	4	3
Other ⁴	3	3	62	10	6	31	10	19	21
Total	100	*	100	100	*	100	100	*	*
(N)	(339)	(48)	(53)	(440)	(316)	(49)	(376)	(113)	(137)

* Totals add up to over 100 because a few members attended more than one university before obtaining their 1st university first degree.

¹ Figures apply to the university attended by graduates for their 1st university first degree, unless the source is the *Report of the Committee on Higher Education (Robbins Report)*, where figures apply to place of most recent graduation.

² Includes graduate transfers of whom there were too few for separate analysis.

³ Includes graduate transfers and promotees of whom there were too few for separate analysis.

⁴ i.e. institutions of higher education other than university.

1960's in the proportion of graduates from Oxford and Cambridge recruited by a large industrial organisation has been much greater than in the administrative class.

Table 3.47 enables us to trace the routes by which graduate recruits entered the administrative class. The post-war reconstruction competitions, and to a greater extent the open competitions, mainly resulted in the appointment of Oxford and Cambridge graduates; the limited reconstructions and limited competitions were routes of entry for graduates mainly from London University. The proportion of Oxford and Cambridge graduates recruited by the limited competitions increased between 1948-55 and 1956-65.

Until 1965, Method I in the open competition always recruited fewer Oxford and Cambridge graduates than Method II, but by 1966-67 the gradual rise in the proportion of men and women from Oxford and Cambridge appointed by Method I and a considerable drop in those entering by Method II resulted in a similar percentage coming in by both methods. There has been a considerable increase in the proportion of graduates recruited from Welsh and English provincial universities by Method II. There were practically none in the 1950's and early 1960's, but 20% in 1966-67.

The changes in the university background of open competition recruits evidently follow similar changes in the number of candidates presenting themselves for selection (Table 3.48). For example, since 1948 the proportion of candidates from Oxford and Cambridge universities applying through Method I has remained steady, but declined for Method II (from 67% in 1957-63 to 45% in 1966-67) as a result of a *general* influx of other candidates in these last two years. Thus successful candidates in Method II from Oxford and Cambridge universities dropped from 88% to 64% between 1957-63 and 1966-67, falling below the figures for Method I successes from 1964 onwards. Since 1964 there has

Table 3.46: Graduate direct entrants to the administrative class; graduate administrators in local education authorities¹; and graduate managers in a large industrial organisation²: Year of recruitment by university attended

University	Direct entrants to the administrative class					Graduate administrators in L.E.As ¹				Managers in a large industrial organisation ²			
	Established					Appointed				Appointed			
	Before 1940	(appointed) 1940-5	1946-50	1951-60	1961 and after	Before 1940	1940-49	1950-59	1960-65	1952-55	1956-60	1961-65	1966-67
Oxford or Cambridge	%	%	%	%	%	%	%	%	%	%	%	%	%
London	85	46	74	81	73	22	38	43	37	38	58	39	33
Welsh and English provincial	5	19	10	8	5	30	19	15	16	12	9	14	12
Scottish	—	16	4	—	14	45	38	38	42	35	22	31	33
Irish and foreign	9	12	8	11	4	}			}			10	10
Other	2	4	—	2	—	4	5	5	4	5	3	6	13
Total	—	7	4	—	3	}			}			}	
	100	*	100	*	100	100	100	100	100	100	100	100	100
(N)	(59)	(36)	(88)	(76)	(80)	(51)	(205)	(248)	(284)	(133)	(207)	(224)	(95)

* Totals add up to over 100 because some members attended more than one university before obtaining their 1st university first degree.

¹ Calculated from figures in Margherita Rendel, *op. cit.*, p. 12.

² Figures supplied at the request of the Fulton Committee by a large industrial organisation.

Table 3.47: *Graduates in the administrative class: Method of entry to the assistant principal grade¹ by year of entry, by university attended*

University	Post-war reconstruction competition	Open competition												Limited reconstruction competition	Limited competition		
		1948-50		1951-55		1956-60		1961-65		1966-67		1948-67			Both	1948-55	1956-65
		Method		Method		Method		Method		Method		Method					
		I	II	I	II	I	II	I	II	I	II	I	II				
Oxford and Cambridge	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
London	69	65	74	75	89	77	93	81	80	78	64	76	79	78	19	11	23
Welsh and English provincial and Irish	13	16	18	8	4	11	2	5	8	6	7	10	7	8	71	67	48
Scottish	8	8	2	6	3	3	2	9	7	8	20	6	9	9	6	11	12
Total	9	10	6	11	3	8	2	5	4	8	9	9	5	5	3	11	6
	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(688)	(125)	(50)	(186)	(140)	(123)	(157)	(125)	(325)	(36)	(226)	(595)	(898)	(1,493)	(31)	(27)	(33)

Note: Figures provided by the Civil Service Commission.

¹ No data was available for nomination or "other" methods of entry.

	Method I						Method II									
University	1948-56		1957-63		1964-65		1966-67		1948-56		1957-63		1964-65		1966-67	
	Candi- dates	Suc- cesses	Candi- dates	Suc- cesses	Candi- dates	Suc- cesses	Candi- dates	Suc- cesses	Candi- dates	Suc- cesses	Candi- dates	Suc- cesses	Candi- dates	Suc- cesses	Candi- dates	Suc- cesses
Oxford and Cambridge	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
London	48	72	56	80	46	81	51	78	58	86	67	88	56	76	45	64
Welsh and English provincial, and Irish	21	11	18	8	16	7	10	6	17	8	9	5	11	8	11	7
Scottish	19	6	18	6	25	7	32	8	17	3	17	4	25	10	35	20
Foreign	11	11	7	7	10	5	7	8	8	4	6	4	8	6	9	9
Total	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—
(N)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	(1,680)	(319)	(929)	(169)	(268)	(57)	(519)	(36)	(2,728)	(208)	(2,590)	(293)	(832)	(157)	(1,348)	(226)

Note: Figures supplied by the Civil Service Commission; those for 1948-56 and 1957-63 appear in *Recruitment to the Civil Service*, p. 29.

Table 3.49: Graduates in the administrative class: Grade distribution according to year of permanent establishment to the Civil Service and to university attended

Present grade	Established before 1940 or appointed 1940-45				
	Oxford and Cambridge	London	Scottish universities	Welsh and English provincial universities	Other
	%	%	%	%	%
Upper grades	79	69	72	58	54
Lower grades	21	31	28	42	46
Total	100	100	100	100	100
(N)	(88)	(26)	(18)	(12)	(28)

Established after 1945					
Present grade	Oxford and Cambridge	London	Scottish universities	Welsh and English provincial universities	Other
	%	%	%	%	%
Upper grades	35	47	27	21	12
Lower grades	65	53	73	79	88
Total	100	100	100	100	100
(N)	(178)	(27)	(24)	(22)	(16)

been a corresponding increase in the appointment of recruits from the English and Welsh provincial universities in both Method II (from 4% in 1957-63 to 20% in 1966-67) and Method I (6% to 8%), the latter also being at the expense of London University. Nevertheless, for both methods, and in each of the four periods of year distinguished, a disproportionate number of successes have come from Oxford and Cambridge compared with London, Welsh and English provincial universities.¹

Were it not for the disproportionate number of graduates from other universities among transfers and promotees to the class, the administrative class would be even more the preserve of Oxford and Cambridge (Table 3.45). Only 43% of the transfers and 17% of the promotees who possess degrees come from Oxford and Cambridge compared with 74% of the direct entrants and 64% of all graduates in the class. No such gap between direct and indirect entrants exists for graduates in the scientific officer class or professional works group.

Career success in the administrative class, which we know from Table 3.43 to be better for graduates who attended university full time than for others, is also slightly better for Oxford and Cambridge than for other graduates (Table 3.49).

¹ Data made available by Dr. J. F. Pickering from his survey of Civil Service "unsuccessfuls" in 1952 also show that the thirty-three "near-misses" in the open competitions were, compared with direct entrants in 1951-55, disproportionately graduates from Welsh and English provincial universities and under-representative of Oxford and Cambridge. We gratefully acknowledge the trouble taken by Dr. Pickering in specially preparing this material for us.

This is particularly clear for those established in the Civil Service before the war, or appointed between 1940 and 1945.¹ The figures for those established after the war show that London is an exception, perhaps because of the influx of London graduates immediately after the war, which has since fallen off. In general, the greater career success of Oxford and Cambridge graduates partly explains why they have a stable distribution between the upper and lower grades despite their increasing proportionate contribution to direct entry in all but the most recent years. However, it should be noted that Table 3.49 refers to year of permanent establishment to the Civil Service but does not take into account class at entry into the Civil Service. Graduates transferred or promoted to the administrative class are not distinguished from graduate direct entrants and, as is obvious from Table 3.45, transfers and promotees come disproportionately from London, the Welsh and English provincial universities or from other institutions of higher education. It might well be considered that a graduate promotee from a Welsh or English provincial university in the lower grades has been more "successful" than a direct entrant from Oxford or Cambridge, established in the Civil Service in the same period and now in the upper grades.

Chances of a successful career are enhanced by "superior" social origins, a privileged school background, and a university education at Oxford or Cambridge. These three variables are also correlated with each other. But which of the three is the most strongly associated with membership of the upper grades? An answer is suggested by Table 3.50. It shows that *within* the group of graduates from Oxford and Cambridge, and *within* the group from London, the Welsh and English provincial universities there are few and small differences in career success correlated with social and school background. University attendance seems to be the crucial predictor of chances of reaching the upper grades of the administrative class.

Subjects studied at university

The disciplinary background of graduates in the administrative class is set out in Table 3.51 and compared with that of the staff of the United States Federal Service, men and women in senior jobs in British industry and administrators in local education authorities. The great majority of graduates in the administrative class (especially the women) took degrees in the arts or humanities (71%), mainly in history and classics. Rather more than a quarter have read a social science, including law, slightly more than one in ten studied a natural science and only a negligible proportion graduated in an applied science.² Those with natural and applied science degrees are disproportionately transfers, and nearly half the promotees studied a social science. Thus arts and humanities graduates are particularly concentrated among direct entrants.

The type of subject studied by graduate recruits is remarkable if compared with foreign experience. W.L. Warner comments on the United States Federal Service that "career civil service executives were concentrated heavily in the applied fields of engineering and administration or in the physical or biological

¹ However, the differences between graduates from Oxford and Cambridge, London and the Scottish universities are not statistically significant, and between these graduates and those from English and Welsh provincial universities only at the 10% level.

² Twenty-seven members took a 2nd university first degree, of whom 20 had first graduated in the arts/humanities. 2nd first degrees were about equally divided between the social sciences and arts/humanities.

Table 3.50: *Graduates in the administrative class: Grade distribution according to university attended, and to type of full-time school last attended and social class origins (father's occupation)*

Present grade	Oxford and Cambridge			London, Welsh, and English provincial universities		
	Fee paying and direct grant	L.E.A. main-tained schools	All	Fee paying and direct grant	L.E.A. main-tained schools	All
Upper grades	% 50	% 48	% 49	% 45	% 50	% 48
Lower grades	50	52	51	55	50	52
Total	100	100	100	100	100	100
(N)	(200)	(63)	(263)	(40)	(46)	(86)

Present grade	Oxford and Cambridge			London, Welsh, and English provincial universities		
	Social classes I and II	Social classes III-V	All	Social classes I and II	Social classes III-V	All
Upper grades	% 48	% 56	% 49	% 44	% 54	% 48
Lower grades	52	44	51	56	46	52
Total	100	100	100	100	100	100
(N)	(219)	(45)	(264)	(61)	(26)	(87)

science",¹ while the "programme managers" studied by Corson and Paul were equally distributed between law, science, engineering and the social sciences.² The United States figures in Table 3.51 are not strictly comparable, but adequate to show that with the possible exception of women federal executives, only a very small proportion were students in the arts, and at least twice as many had read a science, natural or applied. No figures are available for European countries, but it is safe to say that no other major European administration has anything like as high a proportion of graduates from arts and humanities faculties as the British administrative class. The equivalent branches of the German and Swedish Civil Services are largely staffed by lawyers.³ Graduates of the Ecole Nationale d'Administration who enter the French Civil Service with functions somewhat similar to those of the administrative class, have a general education in the social sciences (economics, law, public administration, finance, statistics, etc.).

Figures from studies of British industrial management and local administration are also included in Table 3.51. Apart from a small sample of industrial managers who began their careers as managerial trainees, in none of the groups of managers, directors or local administrators is there such a large concentration of arts graduates and such a small proportion of natural and applied scientists. Thus "top men" in industry and important officials in local government, with

¹ W. L. Warner *et al.*, *The American Federal Executive*, p. 121.

² J. J. Corson and R. S. Paul *op. cit.*, p. 167.

³ However, the courses are usually more broadly based than British law degrees.

Table 3.51: *Graduates in the administrative class, the United States Federal Service^{1,2,3} local education authorities⁴ and British industry^{5,6}: Main subject(s) studied for 1st university first degree*

Subject ⁷	Administrative class						United States Federal Service			Graduate administrators in L.E.A.s ⁴		British industry	
	Upper grades		Lower grades		All	Direct entrants	Transfers	Promotees	Programme managers ¹ (1963)	Higher executives ² (1963)	Women federal executives ³ (1959)	Top managers ⁵ (1954/5)	Managerial trainees ⁵ (1954/5)
	Men	Women	Men	Women									
	%	%	%	%	%	%	%	%	%	%	%	%	%
Arts and humanities	67	80	73	76	71	77	62	38	1	5			24
Social science	31	29	25	33	28	26	23	48	59	44			36
Natural science	12	4	10	5	11	8	26	14	9	20			30
Applied science	2	—	1	1	2	1	1	5	14	24			9
Other	2	—	3	2	2	1	11	—	16	7			2
Total	(166)	(45)	(143)	(85)	(439)	(339)	(48)	(53)	(147)	(462)	(145)	(68)	(51)
(N)											(1,113)		(639)

* Totals add up to over 100 because some members' studies were equally divided between two different fields of study.

¹ J. J. Corson and R. S. Paul, *op. cit.*, p. 167.

² D. T. Stanley, *op. cit.*, p. 31.

³ W. L. Warner, *et al.*, *Public Personnel Review*.

⁴ Margherita Rendel, *op. cit.*, p. 16.

⁵ Calculated from figures in R. V. Clements, *op. cit.*, pp. 174, 183.

⁶ Figures supplied at the request of the Fulton Committee by a large industrial organisation.

⁷ The subjects covered by the four disciplines listed are, as in other tables of this survey:

- arts/humanities: archaeology, classical Greek and Latin, English, other languages, history, philosophy, theology, music and the fine arts;
- social science: public and social administration, social work, anthropology, commerce, accountancy, economics, education, geography, law, politics, psychology and sociology;
- natural science: astronomy, biochemistry, botany, chemistry, genetics, geology, mathematics, microbiology, physics, statistics, zoology, physiology, pharmacology, pathology and anatomy;
- applied science: architecture, engineering (aeronautical, chemical, civil, electrical and mechanical), metallurgy, mining, pharmacy and textiles;
- other: medical, dental or veterinary studies other than those mentioned under natural science, agriculture, forestry, general studies, and other subjects not mentioned above.

whom members of the administrative class are presumably likely to deal, are far more likely than graduates to have some kind of university education in a social science.

An indication of changes in the subjects studied by graduates in the administrative class appears in Table 3.52 where direct entrants¹ to the class are compared with industrial managers and British undergraduates. It shows that between 1940 and 1960 the proportionate recruitment of arts graduates was increasing and of natural and applied science students decreasing; in the 1950's the proportion of social science graduates also decreased. Both these tendencies were reversed in the 1960's. The proportion of surviving direct entrants with arts degrees dropped from 86% in the 1950's to 69%, that for social science graduates rose from 21% to 27% and that for natural and applied science graduates went up from 3% to 12%. Data on post-war recruits to the management of a large industrial organisation reveal similar shifts. However, there has been no substantial change since before the war in the proportion of those in the administrative class with a natural or applied science background—a remarkable pattern given the changing composition of the national output of graduates. Whereas the proportion of all undergraduates taking a natural or applied science degree has doubled from just before the war to 1963–64 (26% to 51%) there was no change in the relative number of natural and applied science graduates taken into the administrative class over the same period (13% to 12%).²

Class of degree

The standard of degree of graduates in the administrative class, together with that of university teachers and administrators in local education authorities, is set out in Table 3.53. One-third of the graduates took firsts, and on this measure the quality of the administrative class is second only to that of the scientific officer class (Table 2.10). The proportion with firsts falls sharply in the lower grades as it does in other higher Civil Service classes. About half the graduates in the class possess upper or undivided seconds, and the remaining fifth lower seconds or below. There are surprisingly narrow differences between direct entrants, transfers and promotees in their class of degree. Both graduate transfers and promotees consist of a higher proportion with lower seconds and below, but there are more firsts among transfers than among direct entrants (43% as against 33%) and nearly as many firsts or upper seconds among promotees as among direct entrants (52% as against 59%). Thus class to class promotion tends to pull in non-graduates rather than graduates with a poor class of degree.

¹ There were too few graduate transfers and promotees for a reliable analysis of trends in the subjects they studied at university. Promotees most recently established to the Civil Service tend disproportionately to have come from art faculties; recently established transfers tend to have taken natural science degrees.

² We also tried to see how far the subject an undergraduate read was related to his choice of Methods I or II in the open competition and to his success. No clear patterns emerged. However, it should be noted that in both Methods I and II between 1948 and 1967 history and classics graduates were disproportionately successful. The data also show that the main explanation for the fall in the proportion of graduate direct entrants with arts degrees in the 1960's lies in the decrease in the proportion of classics candidates presenting themselves in 1964–67.

Table 3.52: Graduate direct entrants to the administrative class and to a large industrial organisation,¹ and undergraduates in British universities²: Year of entry by main subject(s) studied for 1st University first degree

Subject	Direct entrants to the administrative class				Managers in a large industrial organisation ¹			Undergraduates in British universities ²		
	Established				Appointed			1938-39	1954-55	1963-64
	Before 1940	(appointed) 1940-45	1946-50	1951-60	1961-65	1966-67	1961-65	1966-67	1963-64	1963-64
	%	%	%	%	%	%	%	%	%	%
Arts and humanities	80	75	77	86	25	16	25	16	43	43
Social science	11	27	37	21	35	38	35	38	45	43
Natural science	13	9	7	—	28	38	28	38	15	26
Applied science	—	—	1	3	12	7	12	7	11	15
Other	2	—	—	—	1	1	1	1	29	15
Total	*	*	*	*	100	100	100	100	100	100
(N)	(59)	(36)	(88)	(76)	(224)	(95)	(224)	(95)	(81,700)	(125,800)

* Totals add up to over 100 because some members' studies were equally divided between two different fields of study.

¹ These figures were supplied at the request of the Fulton Committee by a large industrial organisation.

² Report of the Committee on Higher Education (Robbins Report) Appendix Two (A), p. 22.

Compared with university teachers and local administrators, administrative class graduates appear to have a slightly better class of degree. There is, however, no fall in degree standards in the lower ranks of university teachers.

The drop in the proportion of firsts among principals and assistant principals is due either to falling recruitment standards or to differences in career success, or both. Table 3.54 indicates that falling recruitment standards may be partly responsible. The proportion with firsts directly recruited to the class in the 1960's is about a fifth of that before the war (13% compared with 63%), and a substantial drop from the 1950's (31%).¹ Instead, the proportion with upper seconds has steadily risen during the same period—but insufficiently to offset the decline in the proportion of direct entrants with firsts. However, if the proportions of recruits with firsts and upper seconds are combined and together regarded as an index of the recruitment standard in the top part of the intake (though this is arguable), then the decline in quality is less than if measured by firsts alone; thus 78% of those directly recruited before the war had firsts or upper seconds compared with 62% of direct entrants in the 1950's and 44% for 1961–65. Against this decline in firsts, and in firsts and upper seconds combined, there has to be set the gradual increase in the proportion of those entering with all other classes of degree—undivided seconds, lower seconds and below. The undivided seconds have gone up from 18% before the war to 34% in the 1950's and 35% for 1961–65. Lower seconds and below amounted to 4% before the war, only 4% between 1951 and 1960, and 21% between 1961 and 1965.

The figures in Table 3.54 to which we have drawn attention are based on our sample. Before any firm conclusions can be reached about the post-war trend in the quality (as judged by class of degree) of direct entrants to the administrative class it is important to consider the trend revealed by our sample against the figures since the war for all direct recruits through Methods I and II to the assistant principal grade. These are given in Table 3.55 supplied by the Civil Service Commission.

First, the figures in Table 3.55 confirm that there has been a decline in the proportion of those with firsts recruited to the administrative class through Methods I and II between 1948 and 1967. Thus between 1948 and 1956 the proportion of those with firsts directly recruited through both Methods was 39%; it fell to 30% for the period 1957–63, and to 24% for 1964–65; it rose to 26% for 1966–67. During the same period there was no corresponding drop in the proportion of candidates with firsts; between 1948 and 1956, 12% of the candidates had firsts compared with between 9% and 11% for the rest of the period.²

¹ The figures in Table 3.55, unlike the figures in our sample in Table 3.54, exclude those directly recruited to the principal grade. Some of these e.g. about 20 Forces/O.C.S. entrants to the principal grade between 1961 and 1965 may have lower classes of degree than the direct entrants in Table 3.55.

² There has not been an *absolute* decline in the *number* of firsts recruited during the whole of this period, 1948–67. The average number of successes with firsts recruited by Methods I and II was 23 a year between 1948 and 1956, and then fell to 20 a year for 1957–63; however, it rose to 26 a year for 1964–65 and 38 a year for 1966–67. Within these totals the average number annually recruited by Method I fell from 14 a year in 1948–56, to 7 a year between 1957 and 1963; it remained at 7 a year for 1964–65—but went down to 2.5 a year for 1966–67. In contrast, there was an average of 8.5 firsts a year recruited by Method II between 1948 and 1956, 13 a year between 1957 and 1963, 17 a year between 1964 and 1965, and 32 a year between 1966 and 1967. The expansion of the number (but *not proportion*) of firsts taken from 1964–67 explains why the success ratio for applicants with firsts was as set out below:
continued opposite

Against this decline in the proportion of successful candidates with firsts, there has been a steady increase in the proportion of successful candidates with upper seconds (though it is less than the increase in the proportion of *candidates* with upper seconds). If we combine the increase in the proportion of upper seconds with the decrease in the proportion of firsts and regard this as a reasonable index of recruitment standards (though, as we have said, this is arguable) at the middle and higher end of the intake, then there has been no real falling off of standards at these levels. Thus between 1948 and 1956, 58 % of the intake had firsts or upper seconds, 57 % for the period 1957-63, 53 % for 1964-65 and 60 % for 1966-67.³

At the lower end of the intake, however, there has been an increase in the proportion of direct recruits with lower seconds. Thus they formed 3 % of the successful candidates between 1948 and 1956, 5 % between 1957 and 1963, 10 % between 1964 and 1965, and 7 % between 1966 and 1967.

There is one final fact to which it is worth drawing attention in any discussion of the trend in the quality of recruits to the administrative class. Between 1964 and 1967 half of the applicants who had, or were to get, firsts, were considered unsuitable by the Civil Service Commission and therefore rejected either through Method I or II. During the same period just over 12.5 % of those accepted by the Civil Service Commission had or were to get lower seconds or thirds (though some of the thirds were then subsequently not recruited to the Service when their degree results were known). It would be interesting to know what it is about the personal qualities and style of these 12.5 % which commended them more to the Commissioners than the rejected firsts; a comparison of these two groups in terms of social class, school and university background might be particularly interesting.

Internal promotion also has its effect on the quality of graduates in the lower grades (Table 3.56). For example, while one-third of graduates established in the Civil Service before 1940 or appointed during the war have been promoted into the upper grades: this is true of half of those with first class degrees. The concentration of graduate transfers and promotees in the lower grades is unlikely to distort significantly the figures for career success.

The determinants of career success

We can now complete our discussion of those factors in the social and educational background of recruits that lend to a successful career within the administrative class. We already know that the relatively greater volume and speed of promotion among those with middle class origins and privileged schooling is accounted for by the superior chances of graduates, especially from Oxford and Cambridge (Table 3.49). We also know that graduates with firsts.

continued

	Method I	Method II
1948-56	1:1.7	1:4.0
1956-63	1:2	1:3.0
1964-65	1:1.5	1:2.0
1966-67	1:9	1:2.5

³ It should be noted that all the figures and percentages quoted both in the text from Table 3.54 and in footnote 2 above include a few successes who decline appointment; they are more likely to be those with firsts and upper seconds than with other classes of degree.

Table 3.53: Graduates in the administrative class, university teachers¹ and administrators in local education authorities:² Class of 1st university first degree

Class of degree	Administrative class						University teachers ¹				Graduate administrators in L.E.A.s ²			
	Upper grades		Lower grades		All	Direct entrants	Transfers	Promotees	Professors, and senior lecturers	Lecturers and assistant lecturers		All		
	Men	Women	Men	Women										
					%	%	%	%	%	%		%	%	%
First	45	36	20	22	33	%	%	43	23	58	62	60	%	70
Upper second	21	27	28	33	25	26	13	29						
Undivided second	17	18	31	21	24	27	12	10						
Lower second	7	9	8	15	8	5	17	21		14	18	17		
Other	9	11	13	8	11	9	15	17	17	28 ³	20 ³	24 ³	30	
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(166)	(45)	(143)	(85)	(439)	(339)	(48)	(53)	(532)	(784)	(1,386)	(925)		

¹ A. H. Halsey and M. Trow, *op. cit.*

² Margherita Rendel, *op. cit.*, p. 13.

³ These figures include non-graduate university teachers who made up 7% of the total in the Robbins Survey (Appendix III p. 19).

Table 3.54: Graduate direct entrants to the administrative class, undergraduates in arts and social science faculties¹ and administrators in local education authorities:² Year of entry by class of 1st university first degree

Class of degree	Direct entrants to the administrative class					Undergraduates ¹ in arts and social science faculties			Graduate administrators in L.E.A.s		
	Established					1938	1954	1962	Before 1940	1940-59	1960-65
	Before 1940	(appointed) 1940-45	1946-50	1951-60	1961 and after						
First	% 63	% 38	% 31	% 31	% 13	% 9	% 5	% 4	%	%	%
Upper second	15	18	27	31	31	}		22	}		68
Undivided second	18	12	27	34	35	43	58	36	49	74	
Lower second	2	5	4	—	11	}		37	}		32
Other	2	27	10	4	10	48	37		51	26	
Total	100	100	100	100	100	100	100	100	100	100	100
(N)	(59)	(36)	(88)	(76)	(80)	(2,920)	(3,950)	(9,500)	(84)	(524)	(317)

¹ Report of the Committee on Higher Education (Robbins Report) Appendix Two (A), pp. 144, 146.

² Margherita Rendel, *op. cit.*, p. 13.

class degrees tend to rise faster than others (Table 3.56). If then university education is the key, what particular aspect of university experience is the crucial factor associated with promotion? We must look at both university and class of degree. In Table 3.57 the administrative class is divided according to university attended and subdivided by class of degree to show whether firsts are more likely to occupy posts in the upper grades than others within each university group or whether graduates from Oxford and Cambridge have greater career success than graduates from other universities with the same class of degree. In fact, it appears that membership of the upper grades depends more on the class of degree than on where it was obtained.

Table 3.56: Graduates in the administrative class: Grade distribution according to year of permanent establishment to the Civil Service and to class of 1st university first degree

Present grade	Established before 1940 or appointed 1940-45					
	First	Upper second	Undivided second	Lower second	Other	All
	%	%	%	%	%	%
Upper grades	86	68	47	50	54	71
Lower grades	14	32	53	50	46	29
Total	100	100	100	100	100	100
(N)	(70)	(31)	(25)	(20)	(26)	(172)

Established after 1945						
Present grade	First	Upper second	Undivided second	Lower second	Other	All
	%	%	%	%	%	%
Upper grades	47	31	27	29	30	34
Lower grades	53	69	73	71	70	66
Total	100	100	100	100	100	100
(N)	(69)	(84)	(74)	(21)	(20)	(268)

In Table 3.58 the division is, first, according to subjects studied and, second, into class of degree. This tabulation shows that scientists with firsts are more "successful" than social scientists or arts graduates with firsts. It should be noted that some of the numbers are small and that they refer to all graduates in the administrative class irrespective of their date of appointment. Social science graduates have the highest proportion of men and women without first class degrees who have reached the upper grades.¹ Career success depends partly on the subjects studied but class of degree remains the primary factor. Finally, in Table 3.59 the graduates are divided according to university group and subdivided according to the faculty in which they studied. If graduation from

¹ This is not, however, statistically significant at the 10% level.

Table 3.57: *Graduates in the administrative class: Grade distribution according to university attended and class of 1st university first degree*

Present grade	Oxford or Cambridge			London, Welsh and English provincial universities			Scottish universities			All ¹
	First	All other classes	All	First	All other classes	All	First	All other classes	All	
	%	%	%	%	%	%	%	%	%	%
Upper grades	65	42	50	63	41	47	79	19	48	48
Lower grades	35	58	50	37	59	53	21	81	52	52
Total	100	100	100	100	100	100	100	100	100	100
(N)	(84)	(182)	(266)	(30)	(59)	(89)	(19)	(21)	(40)	(439)

¹ Including Irish and foreign universities and "other" institutions of higher education.

Table 3.58: *Graduates to the administrative class: Grade distribution according to main subject(s) studied for, and class of, 1st university first degree*

Present grade	Arts and humanities			Social science			Natural and applied science			All ¹
	First	All other classes	All	First	All other classes	All	First	All other classes	All	
	%	%	%	%	%	%	%	%	%	%
Upper grades	63	38	46	71	43	50	83	34	53	48
Lower grades	37	62	54	29	57	50	17	66	47	52
Total	100	100	100	100	100	100	100	100	100	100
(N)	(104)	(213)	(317)	(31)	(97)	(128)	(18)	(29)	(47)	(439)

¹ Including "other" subjects.

Oxford or Cambridge were more important for "success" than the subjects studied, then the proportion in the upper grades from Oxford and Cambridge would be greater than average irrespective of subject. In fact no clear answer emerges and both of these variables appear less important than class of degree.

OCCUPATIONAL EXPERIENCE

Previous field of employment

We saw in Chapter II that the administrative class had collectively the least experience of work outside the Civil Service of all the classes surveyed. Just

Table 3.59: Graduates in the administrative class: Grade distribution according to university attended and main subject(s) studied for 1st university first degree

Present grade	Oxford and Cambridge				London, Welsh and English provincial universities				Scottish universities				All ^{1,2}
	Arts and humanities	Social science	Natural and applied science	All ²	Arts and humanities	Social science	Natural and applied science	All ²	Arts and humanities	Social science	Natural and applied science	All ²	
Upper grades	% 49	% 54	% 58	% 51	% 42	% 58	% 50	% 48	% 46	% 36	% 50	% 43	% 48
Lower grades	51	46	42	49	58	42	50	52	54	64	50	57	52
Total	100	100	100	100	100	100	100	100	100	100	100	100	100
(N) ³	(219)	(57)	(24)	(300)	(48)	(31)	(12)	(87)	(35)	(17)	(4)	(42)	(439)

¹ Including Irish and foreign universities, and "other" institutions of higher education.

² Including "other" subjects.

³ The (N) for the first three columns headed "All" are less than the sum of the (N)'s in their three component columns because the university studies of some members covered more than one discipline.

under two thirds have worked solely in the Civil Service (Table 3.60), and from the figures it may be calculated that 37% have spent their entire working lives in the administrative class. No one occupation predominates as the source of recruits from outside employment. Within the class there are no important differences between the grades or between men and women; but promotees in particular are career civil servants,¹ 78% having always been employed by the Civil Service, whereas relatively more transfers have worked elsewhere (especially in industry and commerce).

Table 3.60: *Administrative class: Field of employment before joining the Civil Service*

Previous field of employment	Upper grades		Lower grades		All	Direct entrants	Transfers	Promotees
	Men	Women	Men	Women				
	%	%	%	%	%	%	%	%
None	64	74	64	66	65	61	57	78
Industry	8	6	11	4	14	13	21	14
Commerce	7	6	6	7				
Education	12	6	8	11	10	13	11	3
Local government	2	2	2	5	3	2	1	4
Armed forces and local uniformed services	1	—	7	—	3	5	—	—
Communications	2	2	1	2	9	13	14	4
Social services	1	6	1	—				
Agriculture, forestry and fishing	1	4	1	—				
Other	7	12	8	11				
(N) ¹	(211)	(50)	(196)	(114)	(571)	(348)	(54)	(169)

¹ Totals add up to over 100 because a few staff were previously employed in more than one field.

The administrative class has a much smaller proportion of staff who have worked for other organisations than the average firm's staff of managers or board of directors. Over half the "top managers" in Clements' sample had moved at least once between firms.² On the other hand only 28% of managers who began their careers as managerial trainees (and thus are more closely comparable with direct entrants) had moved between organisations (as against 39% of direct entrants).³ A contrast emerges between promotees in the administrative class, and their equivalent in industry—managers who "have risen from the bottom". Only 19% of industrial promotees as against 78% of the promotees in the administrative class have remained for their entire working lives in the same organisation.³

A further contrast is provided by the United States Federal Service, where only 13% of senior staff began their careers within the service. Moreover, not only do far greater proportions of senior federal executives have experience of working for other organisations, but they are also recruited from a wider range of occupations. Compared with the minority of the administrative class who did not move directly from school, university or national service to Whitehall, considerably more of the United States federal executives have served in the

¹ Career civil servants are defined throughout the survey as staff who have not been employed outside the Civil Service except in National Service and school and university vacation jobs.

² *Op. cit.*, p. 185.

³ *Op. cit.*, p. 176.

professions, and fewer in industry or commerce. "The typical career of the civilian federal executive has been graduate or professional school, practice of a profession, and then into the Government at a rather high level."¹

In Table 3.61 we look at the previous field of employment of surviving direct entrants in the class, established at different times. It reveals not only an influx from industry and the universities during the war but in the 1960's also. This is in marked contrast to the 1950's; over three-quarters of those who were directly established in the class in the 1950's had been recruited straight from the universities or after national service, whereas the percentage for the 1960's drops to 41%.

Table 3.61: *Direct entrants to the administrative class: Year of permanent establishment by field of employment before joining the Civil Service*

Previous field of employment	Established					
	Before 1940	(appointed) 1940-45	1946-50	1951-60	1961 and after	All
	%	%	%	%	%	%
None	76	43	65	76	41	61
Industry or commerce	4	16	13	10	18	13
Education	15	27	12	6	15	13
Local government	2	1	—	3	4	2
Armed forces and local uniformed services	—	—	1	5	15	5
All other fields	2	23	13	5	22	13
(N) ¹	(51)	(60)	(78)	(71)	(88)	(348)

¹ Totals add up to over 100 because a few members were previously employed in more than one field.

Educational qualifications after entry

Twenty-seven per cent of the administrative class have gained some sort of qualification since entering the Civil Service (Table 3.62), a smaller proportion than in the scientific officer class and professional works group, but larger than in the legal class. About two-thirds of the highest post-entry qualifications are university first or higher degrees (excluding automatic M.A.'s). Apart from the smaller proportion of women in the lower grades with a post-entry qualification, there are no important differences in the lower and upper grades or between men and women. It is evident, however, that promotees are prominent among those who have taken a qualification (including degrees) during their service, although not necessarily in the administrative class. However, relatively fewer promotees than in the scientific officer class or professional works group have gained qualifications after entry and, compared with promotees in the scientific officer class, relatively fewer have acquired degrees (Tables 7.43 and 10.35).

¹ W. L. Warner *et al.*, *op. cit.*, *The American Federal Executive*, p. 156.

Table 3.62: *Administrative class: Highest educational qualification obtained after entry into the Civil Service*

Highest qualification after entry	Upper grades		Lower grades		All	Direct entrants	Transfers	Promotees
	Men	Women	Men	Women				
	%	%	%	%	%	%	%	%
University higher degree	12	14	10	4	16	16	13	21
University first degree	5	4	8	9				
Membership of a professional institution	10	2	1	—	1	1	1	1
All other qualification	1	12	12	6	10	6	14	20
No qualification	72	68	70	81	73	78	73	59
Total	100	100	100	100	100	100	100	100
(N)	(211)	(50)	(196)	(114)	(571)	(348)	(54)	(169)

Again, in contrast with the position in the scientific and technical classes, the majority of those who have gained university qualifications after entry were already graduates who worked for higher degrees, rather than non-graduates who took first degrees externally. Non-graduate entrants tend to acquire professional rather than university qualifications while working in the Civil Service.

It is difficult to gauge trends among direct entrants in the attainment of qualifications after joining the administrative class. However, it is worth noting from survey figures not included in the tables that 28% of those who came in during the 1950's have since taken a university first degree or higher qualification compared with about 16% of those who entered earlier. The proportion falls sharply to 5% for those directly joining the class in the 1960's but they, of course, have not yet had much time to gain further qualifications.

Class to class mobility

As many as 39% of the present members of the administrative class began their Civil Service career as members of another class; and 30% of the class may be considered to be promotees in that they first entered a Civil Service class where graduate recruitment was not normal. Information supplied by the Central Staff Record but not included in this Appendix shows that over half of the promotees in the class in 1965 joined the Civil Service as members of the clerical class or sub-clerical grades. (The lower grades of the administrative class, not unexpectedly, contain relatively more promotees.) As may be seen from Table 3.63, the proportion of promotees and transfers in the administrative class has remained very stable since the early 1950's but has risen from before the war. The two other comparable higher classes (the scientific officer class and professional works group) have a larger proportion of direct entrants and only about half the percentage of promotees.

Studies of directors¹ and top managers² in British industry allow us to make a rough comparison between the proportions reaching the highest positions in British industry and central administration from intermediate or lower levels of their organisation. They suggest that the proportion of promotees in the administrative class roughly equals that on the average board of directors, but

¹ G. H. Copeman *op. cit.*, p. 90.

² R. V. Clements *op. cit.*, p. 185.

Table 3.63: Administrative, and scientific officer classes and the works group of professional classes

Class on entry	Administrative class										Scientific officer class	Professional works group
	Upper grades ¹			New entrants ¹	Upper grades ²		Lower grades ²			All ²		
					Men	Women	Men	Women				
	1929	1939	1950	1949-1953					Men	Women		
					1967				1967			
Administrative class (direct entrants)	%	%	%	%	%	%	%	%	%	%	%	
	71	70	58	61	62	67	61	57	61	81	75	
	12	10	7	7	6	46	4	4	9	4	10	
	17	21	36	32	32	27	35	39	30	16	15	
Other classes where graduate recruitment is not normal (promotees)	100	100	100	100	100	100	100	100	100	100	100	
Total	(296)	(473)	(1,045)	(447)	(214)	(52)	(215)	(128)	(571)	(403)	(666)	
(N)												

¹ R. K. Kelsall, *Higher Civil Servants in Great Britain*, pp. 16, 57. In these samples "transfers" include a few members who would be considered "promotees" by the definition employed in our survey, but the proportion is unlikely to exceed 2%.

² Figures were only available for the original sample from which the four sample groups were drawn; the column for the whole class is based on respondents only.

is less than for a large firm's team of top managers. About 30% of directors started work as clerks, small self-employed businessmen, salesmen, or manual workers. Forty-four per cent of top managers in the large firm left school to join the equivalent of a Civil Service intermediate or subordinate class as apprentices, trainee salesmen, laboratory technicians, or workers on the shopfloor. Neither comparison is entirely accurate, however, because directorships depend partly on the possession of capital as well as ability, and because senior managerial jobs in industry may carry slightly less responsibility than a post in the administrative class, especially its upper grades.

The occupational, social and educational background of promotees to the administrative class has already been set out and compared with that of direct entrants and promotees in other higher classes and in British industry; it remains to compare the background of promotees with that of the executive class, from which the great majority came.

Educational qualifications seem crucial in determining promotion though other background factors are also strongly associated. Among the promotees 12% held first or higher degrees when they first entered the Civil Service, and a further 21% have gained these qualifications since entry (Table 3.64). By contrast, the colleagues they "left behind" in the upper and middle grades of the

Table 3.64: Promotees in the administrative class; and the executive class: Highest educational qualification obtained before and highest qualification obtained after entry into the Civil Service

Highest qualification before entry	Promotees in the administrative class	Executive class	
		Upper and middle grades	Lower grades
	%	%	%
University first and higher degree	12	3	1
Membership of a professional institution	2	1	1
"A" level(s)	3	—	9
Higher National Certificate/Higher School Certificate	45	20	8
"O" level(s)	31	52	37
All other qualifications	—	8	12
No qualification	7	17	31
Total	100	100	100
Highest qualification after entry			
	%	%	%
University first and higher degree	21	3	—
All other qualifications	21	21	17
No qualification	59	76	83
Total	100	100	100
(N)	(169)	(604)	(417)

executive class include only 6% with first or higher degrees gained before or after entry. Thus though educationally poor relations of those who have served throughout their careers in the administrative class, promotees are better qualified than the classes in which they began their Civil Service career.

Their social and school background is similarly intermediate. For example, half the promotees were born into the middle classes compared with about a third of the executive class; and children of manual workers in the executive class are "under-represented" among promotees. Only 5% of the promotees went to an L.E.A. non-selective school compared with 15% of the upper and middle grades and 31% of the lower grades of the executive class. Schools in the private sector are "over-represented" particularly compared with the lower grades of the executive class (Table 3.65).

The disproportionate number of promotees within the administrative class born in the London and South East region has already been mentioned (p. 49) and related to the metropolitan concentration of posts in the administrative class and the extent of local recruitment in supporting classes. In Table 3.65 we can see the extent to which a promotee is more likely to have been born in London and the South East than the typical member of the executive class.

PROFESSIONAL AND LEISURE ACTIVITY

Membership of voluntary associations

The nominal and active membership of clubs, societies and outside associations among members of the administrative class is shown in Table 3.66. On average, nearly four in five belong to some kind of organisation connected with their work and this is slightly more common for women than men, and for upper grades than for the lower grades. Women tend less than men to join clubs and societies devoted to social and leisure activities that are not connected with their work. Otherwise there are few differences between either sexes or grades in the pattern of membership. Thirty-eight per cent of the class help to run these voluntary associations and within this group the relative distribution of active participation between the sexes and grades is similar to that for nominal membership. It is evident from a comparison with a national adult sample that the listed types of organisation recruit nominal and active members far more heavily from the administrative class than from the British population generally.

Readership of the daily and weekly press

In Table 3.67 the reading habits of the administrative class are compared with those of a contemporary national sample in a similar social class. The division of the national sample according to the age at which it completed its full time education very roughly corresponds to a distinction between graduates and non-graduates and allows us a more refined comparison with the administrative class.

The great majority of the administrative class read the serious newspapers. At least 80% of each sample group read the *Times* or *Guardian* or both, and if the *Daily Telegraph* is added, the proportion rises to 90%. The *Times* is by far the most popular followed by the *Guardian* and *Daily Telegraph*. Preference for the *Guardian* against the *Daily Telegraph* tends to distinguish younger from older members. The class also favours the serious Sunday newspapers.

Table 3.65: Promotees in the administrative class and the executive class: Place of birth, social class origins (father's occupation) and type of full-time school last attended

Place of birth	Promotees in the administrative class	Executive class	
		Upper and middle grades	Lower grades
	%	%	%
North	21	22	27
London and South East	51	39	34
Rest of South and Midlands	10	23	15
Scotland, Wales and Northern Ireland	14	14	20
Other	4	2	3
Total	100	100	100
Father's occupation			
	%	%	%
I Higher professional and managerial	10	6	5
II Intermediate professional and managerial	40	30	26
III (i) skilled non-manual	14	15	16
III (ii) skilled manual	23	28	37
IV Semi and V unskilled	11	18	13
Other	3	2	3
Total	100	100	100
Type of school			
	%	%	%
Secondary modern, technical and comprehensive	5	15	31
L.E.A. grammar	58	53	49
Direct grant	17	16	9
Public school and other fee paying	19	16	8
Schools abroad and other	2	—	2
Total	100	100	100
(N)	(169)	(604)	(417)

Table 3.66: Administrative class and local government electors¹: Nominal and active membership of organisations and voluntary associations

Type of organisation	Administrative class										Local government electors ¹
	Upper grades				Lower grades						
	Men		Women		Men		Women		All		
	Nominal members	Active members	Nominal members	Active members	Nominal members	Active members	Nominal members	Active members	Nominal members	Active members	
None	% 8	% 59	% 6	% 68	% 6	% 57	% 10	% 71	% 6	% 62	% X
Professional bodies connected with work	12 } 71	1 } 19	10 } 84	— } 14	9 } 68	2 } 15	4 } 71	— } 10	10 } 73	1 } 15	} 27
Other associations connected with work	59 }	18 }	74 }	14 }	59 }	13 }	67 }	10 }	63 }	14 }	
Clubs and societies connected with social and leisure activities	71	16	66	6	70	15	60	10	66	} 22	17
Religions and Church-connected associations	18	12	16	5	18	12	13	4	17		10
Civic groups	17	} 14	24	} 14	30	} 17	18	} 11	22	} 14	7
Associations connected with education and training	7		2		9		8		5		
Public bodies and committees	6	10	10	14	4	2	2	2	} 47	} 3	1
Other associations connected with welfare	5	12	12	6	6	2	2	3			X
Any other associations, societies, etc.	34	28	27	27	27	13	13	13	(571)	(571)	(X)
(N) ²	(211)	(211)	(50)	(50)	(196)	(196)	(114)	(114)	(571)	(571)	(X)

¹ M. Horton, *Organisation Membership and the Community*, Government Social Survey G. paper No. 66, 1966.² Totals add up to over 100 because many staff were nominal or active members of more than one type of organisation.

Table 3.67: Administrative class and British population in higher and intermediate managerial, administrative and professional occupations¹: Readership of daily and Sunday newspapers

Daily newspaper	Administrative class							British population in higher and intermediate managerial, administrative and professional occupations ¹		
	Upper grades		Lower grades		All	Graduate	Non-graduate	T.E.A. 19 and over	T.E.A. 16-18	All
	Men	Women	Men	Women						
Times	%	%	%	%	%	%	%	%	%	%
Guardian	83	96	56	65	88	73	60	22	11	11
Daily Telegraph	39	46	39	39	39	41	36	18	9	9
Daily Express	27	8	30	16	27	26	30	41	39	31
Daily Mail	10	4	11	4	25	25	37	27	33	34
Sun ³	22	16	14	6				19	26	25
Daily Mirror	5	2	3	3	2	3	2	2	2	2
Daily Sketch	3	2	2	2				5	9	11
None	1	—	1	—	1	—	1	2	3	3
Sunday newspaper	—	—	—	3	—	—	—	X	X	X
Sunday Times	%	%	%	%	%	%	%	%	%	%
Observer	58	62	47	52	49	54	49	46	35	31
Sunday Telegraph	60	64	55	64	60	60	50	29	17	17
Sunday Express	10	10	9	8	9	9	10	21	22	17
News of the World	24	16	16	20	18	17	29	44	55	51
Sunday Mirror	—	4	1	—	3	3	4	7	11	14
Sunday Citizen	2	2	3	1				4	4	14
People	1	—	1	1	6	5	6	1	1	1
None	4	8	7	3				7	13	17
(N) ²	(211)	(50)	(196)	(114)	(571)	(439)	(132)	(392)	(395)	(1,925)

¹ M. Abrams, *Education, social class and reading of news papers and magazines*, pp. 12, 17, Institute of Practitioners in Advertising, National Readership Survey No. 5, January, 1966.

² Totals add up to over 100 because many members read more than one daily or Sunday newspaper.

³ Figures refer to the *Daily Herald* in the last three columns. Little change in the readership of the *Sun* is likely.

Table 3.68: Administrative class: Readership of weekly periodicals

Periodical	Upper grades		Lower grades		All
	Men	Women	Men	Women	
	%	%	%	%	%
None	8	8	17	14	12
Economist	83	90	65	64	68
New Statesman	25	16	27	34	25
Spectator	20	26	16	16	17
New Society	30	50	25	32	33
Statist	12	26	11	4	18
Listener	13	18	16	16	} 23
Times Educational Supplement	6	12	5	13	
Times Literary Supplement	13	8	9	13	
(N) ¹	(211)	(50)	(196)	(114)	(571)

¹ Totals add up to over 100 because many staff read more than one periodical.

Eighty-six per cent read either the *Sunday Times* or *Observer* or both. These high rates far exceed those for the national population of similar education and occupation and suggest that the nature of administrative class work is an independent element in their choice of newspapers.¹ Only a handful of the administrative class read the daily or Sunday tabloids and far fewer read the middle-brow newspapers than of the comparative national population.

Very few members of the administrative class *fail* to read one of the better known current affairs and cultural weekly journals (Table 3.68). Two thirds read the *Economist*² (rising to over 80% of the upper grades) no doubt partly because it is distributed gratis around the departments; but also a further third read *New Society* and one-quarter the *New Statesman*. As with the serious newspapers, there is relatively more reading of the weeklies among the upper grades. Again, the nature of the work of the administrative class apart from their high educational background is the main reason for the very large readership of political and cultural weeklies.

¹ Data made available by Dr. J. F. Pickering from his survey of Civil Service "unsuccesssfuls" show that 17% of the "near misses" in the 1952 competitions now regularly read the *Times* and only 8% the *Guardian*; 22% read the *Observer* and 14% the *Sunday Times*.

² Only 11% of the "near misses" read the *Economist*, the highest figure for any journal listed.

Chapter IV

The Executive Class¹

THE CLASS

Function

The executive class is the second of the three classes which form the main administrative hierarchy of the Civil Service. Some members work in support of officers of the administrative class in the full range of their duties; a few occupy posts previously held by members of the administrative class. Others form a link in the administrative hierarchy by supervising large blocks of clerical work. Some spheres of civil service work are managed almost entirely by members of the executive class; these include government accounting, the negotiation and management of contracts, purchasing, stores management, the management of regional and local offices, organisation and methods of work, automatic data processing and the design of computer systems.² Within their range of duties members of the executive class frequently exercise highly professional and specialised skills.

Salary, grades, tenure, sex and length of service

There are over 48,000 members of the executive class,³ constituting 5.5% of the total non-industrial Home Civil Service (including the Post Office). The class is internally graded from heads of major executive establishments at the top who exercise great responsibility, to the executive officer at the bottom. For the purposes of the survey we have distinguished three levels:

- (i) the *upper* grades, consisting of heads of major executive establishments, principal executive officers and senior chief executive officers. Many are employed on specialised work, e.g. accounts, supply contracts, finance and in technical branches. Others are employed in administrative divisions reporting to assistant secretaries. In other words their responsibilities are comparable with high levels of management in industry, and this is reflected in their high salaries (£3,156 p.a. to £5,250 p.a.). Altogether they make up only 1% of the class (Table 4.1). From this group we surveyed a sample of 194 men (there were too few women for sampling purposes).
- (ii) the *middle* grades, consisting of chief executive officers and senior executive officers. Their functions include the management of local and regional offices and acting as assistants both to members of the

¹ All departmental executive classes are excluded.

² For further details of the work of the executive class, see *Report of the Management Consultancy Group*, pp. 24-29.

³ This figure excludes the departmental executive classes, which in large measure have common open competition recruitment arrangements with the general executive class, and which numbered over 36,000 on January 1, 1967.

administrative class and to professionally qualified staff in the specialised branches of the Civil Service. Their level of responsibility is about equivalent to that of a principal in the administrative class; chief executive officers in particular are often employed in headquarters divisions working to assistant secretaries, and many posts are recognised as being equally suitable for chief executive officers or principals. They earn between £2,230 and £3,400 p.a. and make up a further 11 % of the class. From these grades we took two samples of 210 men and 200 women.

- (iii) the lower grades, consisting of the higher executive officers and executive officers, make up the bulk of the executive class (87 %) and earn salaries of £650 (at eighteen) to £2,100 p.a. Their duties include the supervision of clerical staff and support to principals and chief executive officers in a wide range of administrative work. We took two samples from this group, 223 men and 194 women.

Women are a minority of one-fifth in the executive class and, as in all other classes, they are concentrated in the lower grades: 23 % of the executive officers and 16 % of the higher executive officers are women compared with no more than 5 % of any of the grades at chief executive officer level and above. One reason for the disproportionate number of women in the lower grades of the executive class is that until after the war women entrants to the class had to resign appointments on marriage. Nevertheless, the less than proportionate number of women at even the senior executive officer grade suggests that there are other factors responsible for the concentration of women in the lower grades.

Nearly all the class have permanent appointments: only 1 % are temporary compared with a quarter of all non-industrial civil servants. These figures refer, however, to the tenure of present members of the class. Initial tenure in the Civil Service is a different matter (Table 4.2). Under a sixth of the upper grades but a quarter of the middle and half of the lower grades were initially recruited on a temporary basis, mainly to the clerical officer and clerical assistant classes from where they were promoted; there are proportionately more women than men who signed on as temporary staff. This could be related to

Table 4.1: Executive class: Grade by tenure, sex and salary

	Head of major executive establishment	Principal executive officer	Senior chief executive officer	Chief executive officer	Senior executive officer	Higher executive officer	Executive officer	All
% of class ^{1 3}	%	%	%	%	%	%	%	%
% permanent ¹	100	100	100	100	99	99	99	100
% male ²	100	99	98	95	89	84	77	80
Salary	up to £5,250	£4,000	£3,156-£3,500	£2,571-£2,999	£1,977-£2,411	£1,574-£1,874	£568 (at 18)-£970 (at 25)-£1,457	—
(N) ³	(33)	(119)	(321)	(1,304)	(3,692)	(11,634)	(30,968)	(48,071)

¹ Calculated from *H.M. Treasury, Introductory Factual Memorandum on the Civil Service*, p. 89.

² Figures supplied by the Central Staff Record; they refer to permanent staff only in November, 1966.

³ Permanent and temporary staff on 1st January, 1967.

Table 4.2: *Executive class: Initial tenure on appointment*

Initial tenure	Upper grades	Middle grades		Upper and middle grades	Lower grades	
	Men	Men	Women		Men	Women
	%	%	%	%	%	%
Permanent	85	79	76	78	50	53
Temporary	15	21	24	22	50	47
Total	100	100	100	100	100	100
(N)	(194)	(210)	(200)	(604)	(223)	(194)

the fact that the clerical assistant recruitment schemes until 1959 were open only to women.

Service in the executive class is characteristically long as may be seen from Table 4.3. For example, four out of five of the women even in the middle grades were appointed to the Civil Service before the war. In the lower grades these proportions fall with a corresponding rise among post-war appointees to two-thirds in the case of men and to 40% in the case of women.

Method of entry and permanent establishment to the Civil Service

There are now four main methods of entry into the executive class:

- (i) open competition by interview for candidates possessing or expecting to obtain certain educational qualifications (the minimum requirement now is five G.C.E. passes including two at "A" level or a university degree or an equivalent qualification). This method was introduced in 1956 running alongside the previous open competition scheme, consisting of a written examination and interview, which was stopped in 1963. Until 1962 there was a separate scheme for undergraduates; and since 1959 there has also operated a scheme for older candidates with an upper age limit of twenty-eight (twenty-four until mid-1966).
- (ii) special competitions by examination and interview for members of H.M. Forces and the Overseas Civil Service;
- (iii) a limited competition by examination and interview for members of the general clerical class and certain departmental classes (aged twenty-one to twenty-seven until 1965, and nineteen to twenty-seven from 1967 onwards);
- (iv) departmental nomination (i.e. promotion) of established members of the clerical class (general or departmental) aged twenty-five or over.

Table 4.4 shows for the period 1960-66 the proportions entering the executive officer grade by the different methods and Table 4.5 gives similar information on the method of permanent establishment to the Civil Service taken by members of our sample groups. It is clear from Table 4.4 that the limited competition has recently played a minor part in entry to the executive

Table 4.3: Executive class: Year of appointment and year of permanent establishment to the Civil Service

Year	Upper grades			Middle grades				Lower grades			
	Men		Established	Men		Established	Women	Men		Established	Women
	Appointed	Established		Appointed	Established			Appointed	Established		
1920-29	% 90	% 15	% 78	% 8	% 13	% 82	% 13	% 24	% 2	% 38	% 4
1930-39		% 73		% 68	% 68		% 68	% 24	% 18	% 38	% 28
1940-45	5	—	4	—	—	14	—	13	—	22	—
1946-49	5	11	% 18	21	15	% 5	15	% 63	48	% 40	37
1950-59		1		2	4		4		18		9
1960 and after		—		—	—		—		14		22
Total	100	100	100	100	100	100	100	100	100	100	100
(N)	(194)	(194)	(210)	(210)	(200)	(200)	(200)	(223)	(223)	(194)	(194)

Table 4.4: *Executive class: Year of entry by method of entry into the executive officer grade*

Method of entry	1960	1961	1962	1963	1964	1965	1966
	%	%	%	%	%	%	%
Open and special competitions ¹	25	32	34	32	32	33	39
Limited competitions	4	4	6	5	4	5	4
Departmental promotion	70	63	58	61	63	60	55
Other (nomination, assimilation etc.)	2	1	3	2	1	2	2
Total	100	100	100	100	100	100	100
(N)	(3,008)	(2,817)	(2,562)	(2,442)	(3,406)	(3,936)	(4,513)

¹ Including existing civil servants who take the open competition.

officer grade,¹ and that departmental promotion has gradually declined as a route of entry although it is still much the most important source of any year's intake. An increase in the number of posts since 1965 without a concurrent rise in the number thought worthy of promotion may well have produced this trend. In turn the proportion of entrants since 1960 who took the open or special competitions has steadily increased (from 25% in 1960 to about one third in 1961-65 and 39% in 1966).

From the point of view of permanent recruitment to the Civil Service (i.e. establishment in a class other than the executive class for many present staff), those now in the upper and middle grades of the executive class can be sharply distinguished from those now in the lower grades (Table 4.5). Over two thirds of the former compared with one third of the latter became established in the Civil Service directly through open competitions. Competitions in the period of the "post-war reconstruction" and the limited competitions have not been methods of permanent establishment to the Civil Service for a substantial minority of present staff, as occurred in the administrative class. The other important avenue of establishment to the Civil Service, particularly in the lower grades, was nomination. Three sets of members of the executive class have been nominated for establishment to the Civil Service: direct entrants to the executive class (mainly war-time entrants holding, therefore, temporary appointments and recommended subsequently by their department for establishment); temporary members of the clerical and other supporting classes who on nomination for establishment remained members of their class; and temporary members of the clerical and other supporting classes whose nomination for establishment involved promotion into the executive class. Establishment to the Civil Service by nomination or by open competition is therefore not a synonym for promotion and direct entry respectively into the executive class. Indeed, in the upper and middle grades more direct entrants than promotees were established by nomination whereas in the lower grades the position is reversed (table 4.5).

¹ However, according to the Civil Service Commission, the proportion it contributed to the executive officer grade in 1967 rose to 8%.

Table 4.5: Executive class: Method of permanent establishment to the Civil Service

Method of permanent establishment	Upper grades		Middle grades		Upper and middle grades		Lower grades		All lower grades		Upper and middle grades		Lower grades	
	Men	%	Men	Women	Men	%	Men	Women	%	%	Direct entrants	Promotees	Direct entrants	Promotees
Open competition	80	%	68	81	%	%	31	44	%	%	46	73	32	35
Post-war reconstruction competition	1		7	6	7		13	10	12		7	9	2	14
Nomination	12		13	8	12		39	21	36		40	5	23	38
Limited competition	5		6	3	8		4	4	4		2	8	—	4
Other ¹	3		6	1	5		13	22	15		5	5	43	9
Total	100		100	100	100		100	100	100		100	100	100	100
(N)	(194)		(210)	(200)	(604)		(223)	(194)	(417)		(138)	(466)	(76)	(341)

¹ Mainly special competitions for members of H.M. Forces and the Overseas Civil Service.

However, members established to the Service by open competition or by nomination do differ in age and in educational background. Open competition recruits are on the whole, younger, better qualified and better educated (Tables 4.6 and 4.7). This is to be expected as open competition recruits are normally school leavers, and staff nominated for establishment are often former temporary civil servants who have already tried other jobs. Thus in the upper, middle and lower grades, of staff established to the Civil Service by open competition, post-war reconstruction competitions or other methods, less than a fifth possessed no qualifications on joining the Civil Service; the figure for those nominated for establishment in the Civil Service is 34% in the upper and middle grades and 55% in the lower grades, and is higher still for the few established by the limited competition. There is a similar pattern for type of school attended. For example, less than a fifth of staff established to the Civil Service by open competition or other methods attended an L.E.A. non-selective school as against 27% of those nominated and now in the middle and upper grades, half of those now in the lower grades, and even higher proportions of members who were established by limited competition. This correlation between method of permanent establishment to the Civil Service and educational background does not appear to obtain also for social class origins.

Location

Though the great majority of the upper and middle grades of the executive class work in London, the lower grades, especially the men, are more scattered. In general the geographical distribution of the class resembles that of the clerical rather than the administrative class. In other words, the executive class is relatively dispersed; nevertheless under a third work outside London and the South of England (Table 4.8).

Departmental distribution

The executive class as a whole is evenly spread over the different types of department. But there are some differences between the grades and between the sexes (Table 4.9). The upper grades are heavily concentrated in the technical departments. The lower grades are more numerous in the social departments which also claim the highest proportion of the clerical class (many of whom are responsible to an executive officer or higher executive officer). It may also be noted that the executive class is an exception to the general tendency for women to be concentrated in the social rather than the technical departments.

The social departments tend to have older and the technical departments younger staff than average (Table 4.10). This is also true for the administrative class.

DEMOGRAPHIC COMPOSITION

Age and marital status

The executive class is composed of older people on average than the administrative class, which has a smaller proportion over fifty, and the clerical class, which has a larger proportion under thirty (Table 4.11). This itself is a reflection of the large proportion of promotees in the lower grades and the markedly bottom-heavy structure of the executive class. The average age of men in the

Table 4.6: Executive class: Method of permanent establishment to the Civil Service by highest educational qualification obtained before entry into the Civil Service

Highest qualification before entry	Upper and middle grades					Lower grades				
	Open competition	Post-war re-construction competition	Nomination	Limited competition	Other	Open competition	Post-war re-construction competition	Nomination	Limited competition	Other
	%	%	%	%	%	%	%	%	%	%
University degree or diploma	1	—	6	6	11	1	—	—	3	8
Membership of a professional institution	—	—	7	—	8	—	—	1	—	5
"A" level(s)	—	—	—	—	—	8	—	—	—	45
Higher National Certificate, Higher School Certificate	24	23	14	—	10	11	8	4	—	11
"O" level(s)	65	30	21	8	47	51	59	24	22	24
All other qualifications	3	33	18	5	15	10	17	16	10	1
No qualification	7	14	34	82	9	18	17	55	65	6
Total	100	100	100	100	100	100	100	100	100	100
(N)	(475)	(27)	(67)	(28)	(21)	(156)	(47)	(128)	(15)	(71)

Table 4.7: Executive class: Method of permanent establishment to the Civil Service by type of full-time school last attended

Type of school	Upper and middle grades					Lower grades			
	Open competition	Post-war re-construction competition	Nomination	Limited competition	Other	Open competition	Post-war re-construction competition	Nomination	Limited competition
	%	%	%	%	%	%	%	%	%
Secondary modern, technical and comprehensive	4	37	27	63	16	17	27	50	62
L.E.A. grammar	62	30	40	26	40	57	40	33	25
Direct grant	18	15	13	5	17	15	22	8	3
Public school and other fee paying	16	18	19	6	26	9	8	7	10
Schools abroad and other	—	—	—	—	—	2	4	3	—
Total	100	100	100	100	100	100	100	100	100
(N)	(460)	(27)	(67)	(28)	(21)	(156)	(47)	(128)	(15)
									(71)

Table 4.8: *Executive class: Location*

Location	Upper grades	Middle grades		Lower grades	
	Men	Men	Women	Men	Women
	%	%	%	%	%
Inner London	64	60	77	36	54
Outer London	7	7	3	9	13
North	8	10	5	19	11
Rest of England and Wales	17	18	8	28	12
Scotland	3	5	7	8	9
Total	100	100	100	100	100
(N) ¹	(213)	(217)	(213)	(215)	(215)

¹ Figures were supplied by the Central Staff Record and refer to the original samples from which the sample groups were drawn.

Table 4.9: *Executive class: Departmental distribution*

Type of department	Upper grades	Middle grades		Upper and middle grades	Lower grades		All lower grades
	Men	Men	Women		Men	Women	
	%	%	%	%	%	%	%
Economic	19	24	24	23	20	21	20
Technical	52	28	29	30	24	25	24
Social	19	33	30	34	46	34	44
Other	11	15	16	14	10	20	12
Total	100	100	100	100	100	100	100
(N)	(194)	(210)	(200)	(604)	(223)	(194)	(417)

Table 4.10: *Executive class: Departmental distribution by age*

Age	Upper and middle grades					Lower grades				
	Economic department	Technical department	Social department	Other department	All	Economic department	Technical department	Social department	Other department	All
	%	%	%	%	%	%	%	%	%	%
Under 33	—	—	—	—	—	15	21	20	15	19
33-50	59	74	55	73	64	65	49	49	72	55
Over 50	41	26	45	27	36	20	30	31	13	26
Total	100	100	100	100	100	100	100	100	100	100
(N)	(136)	(218)	(165)	(85)	(604)	(85)	(103)	(170)	(59)	(417)

Table 4.11: Executive class: Age

Age	Upper grades	Middle grades		Lower grades	
	Men	Men	Women	Men	Women
	%	%	%	%	%
17-20	—	—	—	1	5
21-25	—	—	—	10	14
26-30	—	—	—	2	4
31-35	—	1	—	7	5
36-40	1	3	3	13	7
41-45	5	23	17	17	22
46-50	39	40	42	22	19
51-55	35	17	25	15	16
56-60	19	13	12	9	8
61-65	2	3	1	4	1
Total	100	100	100	100	100
(N)	(194)	(210)	(200)	(223)	(194)
Average age	52.5	49.5	49.5	44.5	42.5

lower grades is 44.5 years and of women 42.5 years. Indeed, there is only an eight-year difference between the average age of the men in the lower grade sample group and the men in the upper grades.

The marital status of men in the executive class is unremarkable; but that of the women is worth comment. Eighty-one per cent of the women in the middle grades and 77% in the lower grades are single (Table 4.12). As in other Civil Service classes this is a higher proportion than in the national employed female population of 1961 (43% are single)¹ and for the total national female population aged sixteen to sixty-five (22% are single). The executive class, however, also contains a higher proportion of unmarried women than other civil service classes. The geographical mobility required for promotion within the class may be a contributory factor. The figures in Table 4.12 refer to surviving members of the class and do not cover those who left on marriage or pregnancy, i.e. they do not show the marital status of any given year's *intake*. However, among present staff the younger members are most likely to be married: 31% of those under thirty-three are married compared with 17% of those aged thirty-three to fifty and 6% of those aged fifty and over. The bar against marriage which existed until after the war is probably partly responsible.

SOCIAL BACKGROUND

Geographical origins

The geographical origins of the executive class are shown in Table 4.13. Comparison with the distribution of the general population in the decades in which most of the class were born shows that there is disproportionately heavy recruitment from the Greater London area and the South East of England,

¹ Calculated from figures on p. 22 of the *Sample Census 1966, Great Britain, Summary Tables*.

Table 4.12: Women in the executive class and the female population of Great Britain 1961¹: Age by marital status

Marital status	Middle grades			Lower grades				Great Britain 1961 ¹			
	Women			Women				Women			
	33-50	Over 50	All	Under 33	33-50	Over 50	All	16-32	33-50	51-65	All (16-65)
Single	%	%	%	%	%	%	%	%	%	%	%
Married	81	83	81	69	77	88	77	43	9	12	22
Widowed/divorced/ Separated	16	12	14	31	17	6	18	57	88	71	72
Total	3	5	4	—	6	6	5	1	3	17	6
(N)	100	100	100	100	100	100	100	100	100	100	100
(N)	(124)	(76)	(200)	(48)	(98)	(48)	(194)	(X)	(X)	(X)	(X)

¹ Calculated from figures on p. 2 of the *Sample Census 1966, Great Britain, Summary Tables*.

whilst the rest of Great Britain is correspondingly under represented. Figures not included here indicate that the over representation of "metropolitans" stems from the pre-war period, particularly among women. Relatively more members born outside London and the South East have entered since the war. The main factor in the over representation of those born in the London and South East area is the concentration of executive class posts in the same area (Table 4.8). The extent of local recruitment is clearly demonstrated in Table 4.14.

Social class origins

About 15% of the executive class are sons or daughters of civil servants, which is an average figure for all the Civil Service classes.

The distribution of the class by the occupation of their fathers appears in Table 4.15, along with the social class background of industrial managers in the North West region and a national sample similar in age and occupational composition.

Table 4.13: Executive class: Place of birth, and residential distribution of population of Great Britain 1921 and 1931¹

Region	Executive class					Residential distribution of whole population	
	Upper grades	Middle grades		Lower grades		1921 ¹	1931 ¹
	Men	Men	Women	Men	Women		
	%	%	%	%	%	%	%
North	4	6	4	7	5	} 32	} 32
East and West Riding	5	8	3	9	3		
North West	10	10	5	10	7		
North Midlands	5	2	1	4	3		
London and the South East	39	40	57	30	46	24	25
Rest of Midlands	3	4	4	4	1	} 23	} 23
East	4	3	3	4	3		
Rest of South	6	6	4	3	5		
South West	9	6	3	3	7		
Wales	4	5	4	8	4	} 20	} 19
Scotland	9	8	9	13	10		
Northern Ireland	—	1	1	1	1		
Abroad	3	1	3	4	4	—	—
Total	100	100	100	100	100	100	100
(N)	(194)	(210)	(200)	(223)	(194)		

¹ Calculated from Tables III and VIII of the *Census of England and Wales, 1931, Preliminary Report*, H.M.S.O., London.

Table 4.14: *Executive class: Location by place of birth*

Place of birth	Upper and middle grades			Lower grades		All ¹
	Located in		All ¹	Located in		
	London	North		London	North	
	%	%	%	%	%	%
North	18	45	22	13	82	27
London and the South East	46	20	39	57	9	34
Rest of South and Midlands	24	17	23	15	3	15
Wales, Scotland and N. Ireland	11	18	14	9	7	20
Abroad	1	—	2	5	1	3
Total	100	100	100	100	100	100
(N)	(439)	(47)	(604)	(228)	(64)	(417)

¹ Includes staff located in Scotland and the rest of England and Wales.

These figures suggest that the executive class recruits from a wider social background than comparable industrial and occupational groups in Britain generally. There also exist clear differences in social class origins within the class. In both the middle and the lower grades women have "superior" social antecedents than their male colleagues, a pattern that recurs in all the classes surveyed. For both men and women social background is somewhat wider in the lower grades. This is partly due to the higher frequency of working-class backgrounds among promotees than among direct entrants, and the greater concentration of promotees in the lower grades. However, a comparison of direct entrants and promotees in the different grades, also suggests a trend towards recruitment from a gradually widening social background as opportunities for education beyond the age of 15 or 16 increase.

EDUCATIONAL BACKGROUND AND QUALIFICATIONS

Educational qualifications before entry

The great majority of the class entered the Civil Service as non-graduates (Table 4.16). There is a small minority with university degrees or diplomas or with membership of the major professional bodies, amounting to 11% among men in the upper grades but only slightly more than 2% of the class as a whole. The normal (median) educational qualification of direct entrants on joining is G.C.E. "A" levels, or the H.N.C. or H.S.C., and promotees and limited competition entrants generally have "O" levels. Three quarters of the upper and middle grades have "O" level or higher standards of education but the proportions drop to just below half in the lower grades, where nearly a third have no formal educational qualifications at all. Women, as in the other Civil Service classes, are on average better qualified than men. Comparison in the same table with a sample of managers in the North West suggests that this group with a similar level of responsibility in industry has a much larger minority with

Table 4.15: *Executive class and managers in British industry^{1,2} and the British population in professional, high administrative, managerial and executive occupations born in 1910-1929³: Social class origins (father's occupation)*

Father's occupation	Executive class						Direct entrants		Promotees		British industry		British population in professional, high administrative, managerial and executive occupations born in 1910-1929 ³		
	Upper grades	Middle grades		Upper and middle grades	Lower grades		All lower and grades	Upper and middle grades	Lower grades	Upper and middle grades	Lower grades	Commercial and office managers ¹		Managers ²	
		Men	Women		Men	Women									
	%	%	%	%	%	%	%	%	%	%	%	%		%	%
I Higher professional and managerial	4	7	10	7	4	8	5	16	7	4	4	52	8	67	
II Intermediate professional and managerial	34	30	44	30	24	39	26	23	29	32	26	35	35		
III (i) skilled non-manual	19	16	14	16	15	19	16	15	11	15	17	41	44	29	
III (ii) skilled manual	32	29	22	28	39	26	37	30	44	28	36	7	14		
IV Semi-skilled	7	14	7	14	14	4	12	12	6	20	15	7	14	5	
V Unskilled	2	2	—	2	1	1	1	4		4	2	3	—		—
Other	2	2	2	2	3	4	3	4	100	100	100	100	100	—	
Total	100	100	100	100	100	100	100	100	(138)	(76)	(466)	(252)	(828)	100	
(N)	(194)	(210)	(200)	(604)	(223)	(194)	(417)	(138)	(76)	(466)	(344)	(252)	(828)	(91)	

¹ Calculated from R. V. Clements, *Managers, a study of their careers in industry*, p. 177, George Allen and Unwin, London, 1958.

² D. G. Clark, *The Industrial Manager: his background and career pattern*, p. 58, Business Publications Ltd., London, 1966. The study included departmental managers and above, excluding directors in firms with at least 600 employees in a representative cross section of nationalised and private industry in the North Western region. The definition of managers' was left to each firm.

³ D. V. Glass and J. R. Hall, *loc. cit.*, p. 181.

university or professional qualifications.¹ It may be noted here that the experimental officer class, which has a similar intermediate responsibility and authority on the scientific side of the Civil Service, has a distribution of educational qualifications which is superior to that of the executive class.

It is difficult to measure trends in the pre-entry qualifications of recent recruits to the executive class because only figures on members' year of establishment to the Civil Service, as opposed to entry to the executive class, are available. A comparison of the direct entrants in the upper, middle and lower grades suggests that recent recruits tend to have slightly higher educational qualifications at entry, although fewer have university or professional qualifications (Table 4.16). But these figures do not cover former direct entrants to the executive class who have been promoted to the administrative class, most of whom possess relatively good qualifications. The position among promotees is reversed. Those in the lower grades had poorer qualifications on entry to the Civil Service. This pattern presumably reflects a faster and more frequent promotion into the middle and upper grades of those promotees from the clerical and sub clerical classes with relatively better qualifications.

School attended

The school background of the executive class is shown in Table 4.17. The typical (median) member went to an L.E.A. grammar school. But a substantial minority of just under a third of the combined middle and upper grades attended direct grant or fee paying schools; and just under a third in the lower grades were educated at L.E.A. secondary modern, comprehensive or technical schools (or their past equivalents). This difference in school background in the lower grades reflects the greater concentration of promotees. In both the middle and upper, and the lower grades of the executive class, promotees are more likely than direct entrants to have attended L.E.A. non-selective schools (Table 4.17). The relatively fewer members of the lower compared with other grades, whether direct entrants or promotees, who were educated at direct grant or other fee paying schools, indicate a growing recruitment from the public sector of education. The large rise in the proportion of direct entrants from L.E.A. grammar schools among the lower grades (from 48% to 73%) is of particular note, with the familiar caveat that the figures do not record those who have been promoted into the administrative class.

Comparison is also made in Table 4.17 with the school background of three samples of managers in British industry. It appears that whereas staff in the lower grades have a school background similar to that of managers, the upper and middle grades are recruited more heavily from private schools and in this respect resemble the sample of commercial and office managers.

Superior pre-entry qualifications are clearly associated with education at public and direct grant schools: for example, among the upper and middle grades these schools account for a third of the whole group but half of those with university or equivalent professional qualifications (Table 4.18). Thus the typical member of the executive class is a man who went to an L.E.A. grammar

¹ The sample includes some managers whose jobs more closely correspond with those of members of the experimental officer or professional works group. Both classes have better formal qualifications than the executive class. However, there is no evidence from the study that managers in non-specialist posts have disproportionately inferior qualifications and thus the conclusion that the executive class is the less well qualified still holds.

Table 4.16: Executive class: Highest educational qualification obtained before entry into the Civil Service; and managers in British industry¹; Highest educational qualification

Highest qualification	Executive class											Managers in British industry ¹
	Upper grades	Middle grades		Upper and middle grades	Lower grades		All lower grades	Direct entrants		Promotees		
		Men	Women		Men	Women		Upper and middle grades	Lower grades	Upper and middle grades	Lower grades	
	%	%	%	%	%	%	%	%	%	%	%	
University first degree, university diploma, Dip. Tech. and membership of a professional institution	11	3	5	4	1	7	2	15	8	1	2	30
"A" level(s)	—	—	—	—	8	16	9	—	45	—	3	X
Higher National Certificate, Higher School Certificate	43	20	14	20	9	7	8	54	16	13	7	8
"O" level(s)	36	55	60	52	36	41	37	13	24	61	40	16
All other qualifications ²	3	6	9	8	10	15	12	8	3	8	13	25 ³
No qualification	8	17	11	17	35	14	31	10	5	18	36	21
Total	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(194)	(210)	(200)	(604)	(223)	(194)	(417)	(138)	(76)	(466)	(341)	(828)

¹ D. G. Clark, *op. cit.*² Mainly Royal Society of Art qualifications.³ Includes "A" level(s).

Table 4.17: Executive class and managers in British industry^{1,2,3}: Type of full-time school last attended

Type of school	Executive class										British Industry			
	Upper grades	Middle grades		Upper and middle grades	Lower grades		All lower grades	Direct entrants		Promotees		Commercial, office, and personnel managers ¹	Managers ²	Managers ³
		Men	Women		Men	Women		Upper and middle grades	Lower grades	Upper and middle grades	Lower grades			
Secondary modern, technical or comprehensive	%	%	%	%	%	%	%	%	%	%	%	%	%	%
L.E.A. Grammar	9	11	11	15	35	17	31	6	10	16	35	26	53	33
Direct grant	51	57	52	53	48	56	49	48	73	55	45	34	28	56
Public school and other fee paying	24	15	19	16	9	8	9	22	12	14	8	33	19	12
Schools abroad and other	15	17	15	16	6	15	8	23	2	15	9	6	—	—
Total	1	—	2	—	2	4	2	—	3	—	2	100	100	100
	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(194)	(210)	(200)	(604)	(223)	(194)	(417)	(138)	(76)	(466)	(341)	(254)	(3,327)	(818)

1. Calculated from R. V. Clements, *op. cit.*, p. 180.2. Acton Society Trust, *Management Succession*, p. 8, London, 1956. "Managers" include line managers or specialists above the level of foreman in private manufacturing organisations with 10,000 or more employees.3. D. G. Clark, *op. cit.*, p. 25.

school and took a non-university qualification. But there are also two minorities. The smaller consists of those with university or similar qualifications who tend to come from middle class backgrounds,¹ with schooling in public or direct grant schools, and who occupy posts in the upper grades. The larger minority have attended L.E.A. non-selective schools and gained either "further" qualifications (R.S.A., City and Guilds, etc.) or none: they tend to have longer service, to have begun in the clerical or sub clerical classes, and to be concentrated now in the lower grades of the executive class.

School leaving age

Because the executive class is recruited for the most part from secondary school leavers it may be useful to look at its characteristics in terms of the school leaving age of its members. The details are set out in Table 4.19. For the executive class the median school leaving age is 16 or 17, but the lower the grade the lower the school leaving age: the average for men in the lower grades is 15.7 years compared with 16.3 years and 16.8 years for the middle and upper grades respectively. And 25% of men in the lower grades left school at 14 or earlier compared with 11% in the middle and 5% in the upper grades. Women on average left school later and the grade differences between them are smaller.

The difference in school leaving age between direct entrants and promotees follows the same pattern as for school attended and pre-entry qualifications: especially among members of the lower grades, the school leaving age of promotees is much lower, only 28% having stayed at school until 17 or over compared with 82% of their colleagues who entered the executive class directly. Among direct entrants, but not promotees, the lower grades include proportionately more who left school later. This is further testimony of the rising formal educational standards of recruits to the executive class.

OCCUPATIONAL EXPERIENCE

Previous field of employment

The desk classes generally have less occupational experience outside the Civil Service than the professional, scientific and technical classes. The advantages and disadvantages of this for the efficiency of the Civil Service are not the concern of this survey. They may, however, be better judged in the light of facts about the distribution of "outside" experience. The executive class is second only to the administrative class in its proportion of members whose working life has been wholly spent in the Civil Service (58% of the upper and middle and 41% of the lower grades). Most of those who held outside jobs had worked in industry or commerce and the remainder came from education, local government and the armed services (Table 4.20).

Experience of outside employment is commoner among those recruited to the Civil Service since 1945 than among pre-war recruits (Table 4.21). Those established before the war contribute 77% of the present members of the upper and middle grades but 90% of those with no other job experience; for the lower grades the comparable figures are 25% and 41%. This is because of the greater competition for Civil Service posts before the war, and the wider age limits for entry after the war.

¹ Those with fathers in social classes I and II form 36% of the upper and middle grades and 52% of those with higher qualifications.

Table 4.18: *Executive class: Highest educational qualification obtained before entry into the Civil Service by type of full-time school last attended*

Type of school	Upper and middle grades						Lower grades						
	University degree or diploma; membership of a professional institution	H.N.C./H.S.C.	"O" level(s)	All other qualifications	No qualification	All	University degree or diploma; membership of a professional institution	H.N.C./H.S.C.	"A" level(s)	"O" level(s)	All other qualifications	No qualification	All
	%	%	%	%	%	%	%	%	%	%	%	%	%
Secondary modern, technical or comprehensive	1	2	1	57	55	15	25	12	4	11	58	60	31
L.E.A. grammar	48	58	68	16	18	53	53	74	81	66	15	26	49
Direct grant	24	24	14	2	16	16	19	7	13	11	1	8	9
Public school and other fee paying	27	16	16	25	11	16	3	—	1	10	25	5	8
Schools abroad and other	—	—	—	1	—	—	—	7	1	2	1	2	2
Total	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(37)	(153)	(305)	(36)	(73)	(604)	(17)	(32)	(49)	(161)	(52)	(106)	(417)

Table 4.19: *Executive class: School leaving age*

School leaving age	Upper grades	Middle grades		Lower grades		Direct entrants		Promotees	
	Men	Men	Women	Men	Women	Upper and middle grades	Lower grades	Upper and middle grades	Lower grades
	%	%	%	%	%	%	%	%	%
14 and under	5	11	3	25	7	4	3	16	25
15	6	5	4	9	8	11	7	3	9
16	24	38	51	32	33	13	8	40	38
17	29	33	31	22	26	72	82	41	28
18 and over	36	13	12	11	27				
Total	100	100	100	100	100	100	100	100	100
(N)	(194)	(210)	(200)	(223)	(194)	(138)	(76)	(466)	(341)
Average school leaving age	16.8	16.3	16.6	15.7	16.7				

Table 4.20: *Executive class: Field of employment before joining the Civil Service*

Field of employment	Upper grades	Middle grades		Upper and middle grades	Lower grades		All lower grades
	Men	Men	Women		Men	Women	
	%	%	%	%	%	%	%
None	68	60	68	58	38	51	41
Industry	7	11	6	33	23	99	47
Commerce	15	21	16		33	28	
Education	2	1	3	1	1	3	2
Local government	9	11	2	9	9	3	8
Armed forces and local uniformed services	—	3	1	2	12	2	10
Other	7	5	6	6	8	13	8
(N) ¹	(194)	(210)	(200)	(604)	(223)	(194)	(417)

¹ Totals add up to more than 100 because some members had posts in more than one field before recruitment.

There is some comparable information for middle management in industry. According to the studies by Clements¹ and Clark² about a third of all managers have been employed by only one firm. The Acton Society study³ puts the figure higher at 44%. But all these estimates are lower than that for the comparable group of men in the upper and middle grades of the executive class for which our figure is nearly two thirds.

As may be seen from Table 4.22, occupational experience before entering the Civil Service is more common among early than late school leavers. For example, among the lower grades 37% left school at 17 or later, but this group contributes 44% of those who entered directly into the Civil Service with no other occupational experience. In other words experience in industry and commerce is an alternative background to prolonged formal education among some recruits (and especially promotees) to the executive class.

Educational qualifications after entry

The attainment of formal qualifications after entry into the Civil Service is in general less common among the desk than the scientific and technical classes.

¹ *op. cit.*, p. 176.

² *op. cit.*, p. 82.

³ *op. cit.*, p. 10.

Table 4.21: *Executive class: Field of employment before joining the Civil Service by year of permanent establishment to the Civil Service*

Year of establishment	Middle and upper grades					Lower grades					
	None	Industry and commerce	Local government	Other	All ¹	None	Industry and commerce	Local government	Armed forces and local uniformed services	Other	All ¹
Before 1940 (Appointed) 1940-5 1946 and after Total	%	%	%	%	%	%	%	%	%	%	%
	90	56	50	50	77	41	12	21	11	16	25
	3	8	5	11	5	14	14	18	12	24	15
	7	36	34	39	18	45	74	61	77	60	60
	100	100	100	100	100	100	100	100	100	100	100
(N)	(393)	(148)	(45)	(38)	(604)	(184)	(182)	(26)	(31)	(43)	(417)

¹ Includes staff previously employed in the field of education of whom there were too few for separate analysis.

Only a minority of the executive class have gained such qualifications, less than a quarter among the upper and middle grades and less than a fifth among the lower grades.¹ The qualifications in question range from university degrees to minor secretarial certificates: 12% of the men in the upper grades have taken degrees or gained membership of professional bodies, and 14% of the women in the lower grades have been successful in R.S.A. examinations (Table 4.23).

Among direct entrants and promotees, members of the upper and middle grades are both more likely to have gained qualifications during service and to have gained superior qualifications. The reason may lie in either declining standards of recruitment or in faster promotion of staff within the class with post-entry qualifications. The proportion of direct entrants and promotees with post-entry qualifications is very similar both in the middle and upper, and in the lower grades, so we can make a crude test of the different internal promotion rates of staff according to whether they obtained post-entry qualifications, without any distorting effect from the number of promotees in the lower grades. From Table 4.24 it is clear that those who obtained qualifications during service and were established before 1940 are slightly more likely than their colleagues to be in the upper grades (33% as against 24%). However, it should be noted that the figures exclude both members who will yet gain qualifications (who presumably predominated in the lower grades) and ex-members with post-entry qualifications since promoted into the administrative class (who probably would otherwise have been in the upper grades).

Class to class mobility

We distinguish two types of entrant to the executive class:

- (a) those who first joined the Civil Service as members of a departmental or the general executive class—direct entrants.
- (b) those who first joined the Civil Service as members of any other class.

The latter are all referred to as promotees—though for a tiny minority (less than 2%) this is a misnomer. This tiny minority are those who first became civil servants as members of a class where graduate recruitment was normal—e.g. the research officer or accountant class; for this minority, therefore, transfer to the executive class is not strictly speaking promotion. However, the vast majority of those who began their careers in another class before moving into the executive class have come from the clerical officer or clerical assistant classes or the manipulative or typing grades; for this large majority, therefore, movement into the executive class is clearly promotion.

Table 4.25 sets out the proportion of direct entrants and promotees in each of the sample groups, along with that for the class in 1960 and for middle and junior management in British industry. Apart from men in the upper grades, less than a quarter of the class are direct entrants; and the figure for men in the upper grades is only 38%. A similar distribution holds for the class in 1960. Of the five other higher or intermediate Civil Service classes for which we have statistics, none have anything like the same rate of recruitment from below. All are composed of at least 60% who entered initially into the class in which they

¹ The Management Consultancy Group reported that "generally, with some notable exceptions, little positive encouragement and no incentives appear to be given to executives to qualify themselves in particular areas of expertise". *loc. cit.*, p. 29.

Table 4.23: Executive class: Highest educational qualification obtained after entry into the Civil Service

Highest qualification after entry	Upper grades	Middle grades		Upper and middle grades	Lower grades		All lower grades	Direct entrants		Promotees	
	Men	Men	Women		Men	Women		Upper and middle grades	Lower grades	Upper and middle grades	Lower grades
University degree or membership of a professional institution	%	%	%	%	%	%	%	%	%	%	%
	12	3	3	4	3	—	2	11	—	3	1
	4	3	5	19	—	1	15	13	17	20	14
	6	4	9		3	14					
All other qualification	9	10	3		10	8					
No qualification	69	79	80	76	84	77	83	76	83	77	85
Total	100	100	100	100	100	100	100	100	100	100	100
(N)	(194)	(210)	(200)	(604)	(223)	(194)	(417)	(138)	(76)	(466)	(341)

Table 4.24: Executive class: Grade distribution according to highest educational qualification obtained after entry into the Civil Service, of staff established before 1940

Present grade	Established before 1940	
	No qualification after entry	Gained qualifications after entry
	%	%
Upper grades	24	33
Middle grades	52	53
Lower grades	24	14
Total	100	100
(N)	(494)	(103)

now work. Thus in effect the clerical and executive class form one class with two points of entry and thus with differential chances of internal promotion. Nevertheless it should be noted that promotion to managerial rank in industry may be of even greater proportions. The estimates included in Table 4.25, certainly suggest that this is so.

In Table 4.26 the social class origins of direct entrants and promotees are set out and compared with those of the clerical class and the equivalent of direct entrants and promotees in British industrial management. In all grades promotees have only a slightly more working class background than direct entrants, due mainly to the higher proportion of promotees with fathers in social class IV or V. Moreover promotees are only slightly more middle class in background than their main Civil Service class of origin.¹

Thus class to class promotion involves some social class assimilation. Socially "superior" elements in the clerical class and other supporting classes tend to be promoted into the executive class, especially its lower grades, where they join direct entrants with a similar social class background. However, the relatively narrow differences in social origins between the executive and clerical classes makes the assimilation less evident than among other classes.

A comparison with industrial management's equivalent of direct entrants and promotees—managers whose career began as managerial trainees and managers who rose from the bottom—reveals that although direct entrants in industry are more often middle class in origin than direct entrants in the executive class, promotees among managers are drawn more frequently from the working class (social classes III to V): only 19% were born into social classes I or II compared with 29% of the promotees in the lower grades and 36% of the promotees in the middle and upper grades of the executive class.

Social selection in the promotion process is strongly tied to educational selection. It is not surprising that promotees have fewer and poorer pre-entry educational qualifications than direct entrants to the executive class (Table 4.27). The open competition for entry now requires five G.C.E. passes including

¹ The clerical class itself consists of a substantial proportion of promotees from the clerical assistant class and sub-clerical grades (about 40% of the men and 50% of the women). However, a similar if slightly smaller proportion of promotees to the executive class are from the same classes and grades.

Table 4.25: Executive class 1960¹ and 1967, and managers in British industry²: Distribution of direct entrants and promotees

Type of entrant	Executive class 1967						Executive class 1960 ¹			British industry ²	
	Upper grades	Middle grades		Upper and middle grades	Lower grades		All lower grades	Upper and middle grades	Lower grades	Middle management	Junior management
		Men	Women		Men	Women					
Direct entrant	%	%	%	%	%	%	%	%	%	%	%
Promotee ³	38	19	13	19	15	22	16	19	22	14	6
Total	62	82	87	81	85	78	84	81	77	86	94
(N)	100	100	100	100	100	100	100	100	100	100	100
	(194)	(210)	(200)	(604)	(223)	(194)	(417)	(X)	(X)	(1,870)	(984)

¹ N. Walker, *Morale in the Civil Service*, p. 166, Edinburgh University Press, Edinburgh, 1961.

² Calculated from Acton Society Trust, *op. cit.*, p. 26. Direct entrants include those whose first appointment was as a managerial trainee; promotees include those who began in manual and clerical work, or as technical and laboratory assistants. "Middle management" was defined as "works managers controlling several hundreds" (p. 19) as well as chief draughtsmen and departmental heads; junior management included technicians, assistant accountants, shift managers and section heads.

³ Including a few members (never more than 2% of the survey sample groups) whose class on appointment to the Civil Service either normally recruited graduates or belonged to the professional, technical or scientific Civil Service.

Table 4.26: *Executive class, clerical class and managers in British industry*¹:
Type of entrant by social class origins (father's occupation)

Father's occupation	Executive class				Clerical class	British industry ¹	
	Upper and middle grades		Lower grades			Managerial trainees	Managers "who rose from the bottom"
	Direct entrants	Promotees	Direct entrants	Promotees			
	%	%	%	%	%	%	%
I Higher professional and managerial	16	4	7	4	3	} 84	} 19
II Intermediate professional and managerial	23	32	29	25	20		
III (i) Skilled non-manual	15	14	11	17	11	} 16	} 68
III (ii) Skilled manual	30	28	44	37	37		
IV and V Semi and unskilled	12	20	6	14	22	—	13
Other	4	1	4	4	8	—	—
Total	100	100	100	100	100	100	100
(N)	(138)	(466)	(76)	(341)	(366)	(68)	(341)

¹ Calculated from R. V. Clements *op. cit.*, p. 173.

Table 4.27: *Executive and clerical classes: Type of entrant by highest educational qualification obtained before entry into the Civil Service*

Highest qualification before entry	Executive class				Clerical class
	Upper and middle grades		Lower grades		
	Direct entrants	Promotees	Direct entrants	Promotees	
	%	%	%	%	%
University degree, diploma, Dip.Tech., and member- ship of a professional insti- tution	15	1	9	2	—
“A” level(s)	—	—	45	2	1
Higher School Certificate, Higher National Certificate	54	12	16	6	4
“O” level(s)	13	58	24	38	37
All other qualifications	8	8	2	13	10
No qualification	10	20	5	38	47
Total	100	100	100	100	100
(N)	(138)	(466)	(76)	(341)	(366)

two "A" levels whereas promotion from the clerical class is either by limited competition in a non-academic written examination, or by departmental selection. The minimum educational requirements for direct entry into the clerical class are 5 "O" levels (in certain cases, less). Thus 89% of promotees in the lower grades and 86% in the middle and upper grades possessed no qualifications higher than "O" level before entering the Civil Service compared with 32% and 31% of the direct entrants respectively. Nevertheless those who have joined the executive class by promotion have a superior educational background to that of their main class of origin, where very many were completely unqualified and only 5% had qualifications higher than "O" level.

Table 4.28: *Executive and clerical classes: Type of entrant by school leaving age and type of full-time school last attended*

School leaving age	Upper and middle grades		Lower grades		Clerical class
	Direct entrants	Promotees	Direct entrants	Promotees	
	%	%	%	%	%
15 and under	15	21	10	35	43
16	13	39	8	35	35
17 and over	72	40	82	29	22
Total	100	100	100	100	100
Type of school					
	%	%	%	%	%
Secondary modern, technical and comprehensive	6	18	10	36	47
L.E.A. grammar	48	53	73	44	41
Direct grant	22	14	12	7	2
Public school and other fee paying	23	15	2	10	7
Schools abroad and other	—	—	3	2	3
Total	100	100	100	100	100
(N)	(138)	(466)	(76)	(341)	(366)

The type of school attended by the executive class and the age at which they left reveal a similar pattern of comparison between direct entrants and promotees, and between promotees and the clerical class (Table 4.28). At the same time it fits the picture of differential social class origins which we have already discussed. Again, it is a question of the educationally superior minority in the clerical class and sub-clerical classes and grades being promoted to join a class to which their background is more akin, especially in the middle and upper grades.

One correlate of the promotion of women into the executive class is worth noting (Table 4.29). Promotion is associated strongly with spinsterhood, and the proportion of spinsters among the promoted is much higher than in the class of origin. Thus spinsterhood is associated not only with careers in the higher and intermediate Civil Service classes but with promotion from the subordinate classes. The rule that obliged women to resign their appointments on marriage and which operated until after the war has probably contributed to this association between promotion and spinsterhood.

PROFESSIONAL AND LEISURE ACTIVITY

Membership of voluntary associations

Some two thirds of the executive class reported that they belong to a work-connected organisation (professional or staff association) and at least half are members of a club or association devoted to social and leisure activities (Table 4.30). The executive class is unusual among the desk classes of the Civil Service

Table 4.29: Women in the executive and clerical classes: Type of entrant by marital status

Marital status	Executive class				Clerical class
	Middle grades		Lower grades		Women
	Women		Women		
	Direct entrants	Promotees	Direct entrants	Promotees	
	%	%	%	%	%
Single	68	83	72	79	38
Married	20	14	28	15	55
Widowed/divorced/separated	12	3	—	6	7
Total	100	100	100	100	100
(N)	(25)	(175)	(43)	(151)	(183)

in the high proportion who reported membership of a work-connected organisation—the figure reaches 79% for men in the upper grades. Active membership however, is confined to roughly half of the class: it is similar as between grades but more common among men than women. As with the administrative class nominal as opposed to active membership is typical in the case of work-oriented associations and rather less usual for social and leisure clubs. About half of the men and a third of the women actively participate in the running of organisations and from the figures it is clear that about one in two or three of these activists are involved in more than one type of outside association. Men in the upper grades are, on the average, nominal members of three types of association and, at the other end of the scale of participation, the women in the lower grades have membership of an average of one and a half different kinds of organisation.

Location of work has an obvious bearing on membership of outside bodies. For almost every type of organisation there is a greater participation among those working in the provinces or Scotland, than among those employed in inner London who presumably, spend a disproportionate amount of time in travelling to and from their work.

A comparison with national membership of voluntary associations reveals as in the case of all other Civil Service classes, that there is a higher rate of membership and participation among members of the executive class.

Readership of the daily and weekly press

The distribution of newspaper reading in the executive class is set out in Table 4.31. On our definition of regular readership all but a negligible proportion of the executive class are both daily and Sunday newspaper readers. The *Times* is the most popular paper among men in the upper grades, the *Daily Telegraph* in the middle grades and one of the middlebrow newspapers (*Daily Express*, *Sun* or *Daily Mail*) in the lower grades. But the *Daily Telegraph* is a close second in the lower grades and this is the most widely read individual newspaper in the executive class as a whole. Very few read the tabloids—*Daily Mirror* or *Daily Sketch*—except for 15% of the men in the lower grades. In every sample

Table 4.30: Executive class and local government electors²: Nominal and active membership of organisations and voluntary associations

Type of organisation	Upper grades				Middle grades				Upper and middle grades				Lower grades				All lower grades		Local government electors ²	
	Men		Women		Men		Women		N	A	N	A	N	A	N	A	N	A	N	%
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
None	4	49			5	51	13	65							8	48	9	52		
Professional bodies connected with work	26	82	3	24	5	76	5	63	7	74	1	21	2	65	2	21	2	64		27
Other associations connected with work	79		22		74		10		72		21		52		64		20			
Clubs and societies connected with social and leisure activities	79		21		56		8		74		20		52		69		20			17
Religious and Church connected associations	21		15		18		12		18		11		20		17		10			10
Civic groups	37		5		35		7		36		6		10		19		3			7
Associations connected with education and training	11		5		14		3		13		5		20		13		5			5
Public bodies and committees	1		1		1		—		1		—		1		2		2			1
Other associations connected with welfare	2		—		7		4		7		3		4		3		2			3
All other associations, societies, etc.	15		3		12		3		12		3		14		12		4			
(N) ¹	(194)		(194)		(210)		(210)		(604)		(604)		(223)		(223)		(194)		(417)	

N = Nominal members

A = Active members

1. Totals add up to over 100 because many staff were nominal or active members of more than one type of organisation.

2. M. Horton, *op. cit.*

Table 4.31: *Executive class and British population in higher and intermediate managerial, administrative or professional occupations with a terminal education age of 16-18¹: Readership of daily and Sunday newspapers*

Daily newspaper	Executive class							Great Britain: population in higher and intermediate managerial, administrative or professional occupations with a T.E.A. of 16-18 ²
	Upper grades	Middle grades		Upper and middle grades	Lower grades		All lower grades	
	Men	Men	Women		Men	Women		
	%	%	%	%	%	%	%	%
Times	56	20	28	22	7	12	8	11
Guardian	21	23	20	22	15	14	15	9
Daily Telegraph	53	48	49	51	36	42	37	39
Daily Express	14	23	14	28	20	20	33	33
Daily Mail	20	20	21	45	26	24	51	26
Sun ²	1	3	4		6	5		2
Daily Mirror	3	5	20	6	14	6	14	9
Daily Sketch	2	1	2		3	6		3
None	1	1	3	1	4	3	4	X
Sunday Newspaper								
	%	%	%	%	%	%	%	%
Sunday Times	43	34	35	35	26	26	26	35
Observer	40	40	36	40	26	26	26	17
Sunday Telegraph	21	15	17	16	14	18	15	22
Sunday Express	37	46	37	44	44	39	43	55
News of the World	4	3	2	7	15	7	22	11
Sunday Mirror	4	5	2		13	7		1
Sunday Citizen	1	—	1	6	2	1	13	1
People	1	4	1		20	11		13
None	6	6	5	6	12	18	13	X
(N) ³	(194)	(210)	(200)	(606)	(223)	(194)	(417)	(895)

¹ M. Abrams, *Education, social class and reading of newspapers and magazines*, pp. 12, 17.

² The *Daily Herald* in column 8. Little change in the readership for the *Sun* is likely.

³ Totals add up to over 100 because many members read more than one daily or Sunday newspaper.

group except for men in the upper grades the most popular Sunday newspaper is the *Sunday Express* closely followed by the *Sunday Times* and the *Observer*. Women on the whole read newspapers less than men, but those who do are drawn relatively towards the more serious press. The lower grades read rather less widely among the different newspapers and at the expense of the serious press. For example, 15% of the lower grades take the *Guardian* compared with 22% of the middle and upper grades.

A comparison in the same table with a national sample of a similar educational background and in corresponding occupations reveals that the newspaper reading habits of the lower grades are nationally representative but those of the middle and upper grades more serious. Relatively more members of the executive class (in whatever grade) read the politically liberal *Guardian* and *Observer*.

The reading of periodicals is as widespread as newspaper reading among the middle and upper grades but much less common among members of the lower grades.

The details in Table 4.32 show that if a member reads any of the listed periodicals he tends to read at least two of them. The *Economist* is the most popular, being read by more than twice the number who read its nearest competitor, the *New Statesman*. About a fifth read one of the listed cultural or

Table 4.32: Executive class: Readership of weekly periodicals

Periodical	Upper grades	Middle grades		Upper and middle grades	Lower grades		All lower grades
	Men	Men	Women		Men	Women	
	%	%	%	%	%	%	%
None	30	44	55	41	66	67	66
Economist	61	37	28	39	17	13	17
New Statesman	10	10	10	10	7	6	7
Spectator	5	4	5	4	4	5	4
New Society	6	8	9	10	5	4	5
Statist	3	4	2	3	1	1	1
Listener	9	12	9	24	11	11	19
Times Educational Supplement	8	5	7		2	5	
Times Literary Supplement	10	8	4		6	9	
Total	173	133	108		75	70	
(N) ¹	(194)	(210)	(200)	(604)	(223)	(194)	(417)

¹ Totals add up to over 100 because some members read more than one periodical.

non-political journals such as the *Times Literary Supplement*, the *Times Educational Supplement* or *Listener*. But up to two thirds of a sample group read a listed current affairs periodical.

Our analysis of the social and personal correlates of readership yields no very clear pattern. Differences between the sample groups and the sexes are far more marked than within sample groups. The tentative conclusion must therefore be that interests and responsibilities attached to one's occupation are the main determinants of choice in the reading of newspapers and periodicals. The other, secondary, factor is the general political and social outlook of the executive class. Although we cannot deduce the political views of readers from those of the particular newspapers they read, it is probably significant that choice of newspapers and periodicals tends towards political consistency. Thus 52% of the *Spectator* readers and only 23% of *New Statesman* readers in the upper and middle grades also read the *Times*. On the other hand 40% of those who read the *New Statesman* also read the *Guardian*. However, these correlations should be treated with some caution in the light of the small numbers involved.

Chapter V

The Clerical Class¹

THE CLASS

Function

In this chapter we deal with the largest of the three desk classes covered in our survey. The clerical class undertakes all the usual clerical work involved in running departmental business except the simpler tasks which are assigned to clerical assistants (a separate class and not covered by our survey). The clerical class works in a supporting capacity to the administrative, executive and, to a lesser extent, other classes. Typical jobs involve book keeping and record keeping; the filing, indexing and retrieval of documents; examining claims for expenses, entitlements or social security benefits; informing the public personally or by mail of their rights to social security benefits; and the selection and sending of "stock" letters. The report of the Management Consultancy Group draws attention to the wide range of responsibility and variety between different clerical class jobs. It concludes that "most of the clerical officers we saw were performing routine clerical jobs which were limited in scope and in some cases indistinguishable from clerical assistant jobs",² but also that "some clerical officer jobs demanded considerable skill and judgement, and seemed to us comparable with the jobs done by some executive officers we saw".² Thus, one clerical officer might be employed for ten years on the filing and retrieval of papers, whilst another (with equivalent qualifications) would be interviewing members of the public to make a preliminary assessment of their right to legal aid.

Salary, grades and tenure

The vast majority (98%) of the clerical class are clerical officers and earn between £15 and £20 per week if over twenty-five (Table 5.1). Only a few departments still employ higher clerical officers after the 1947 reorganisation of the executive and clerical classes, and the grade is continually declining in numbers. Members of the clerical class typically hold permanent positions but a minority (15%) are temporary (Table 5.1). There is an established procedure for recruiting temporary clerical officers who do not have the prescribed educational qualifications (usually five "O" levels or equivalent) for an established post but who, after six months of satisfactory service if over twenty or, if under, without any qualifying period of service, may become permanent by limited competition in an internal written examination. In London, where recruitment is difficult, clerical officers under twenty are taken on with four instead of the normal minimum of five "O" levels and are nominated for establishment after seven months of satisfactory service.

¹ Departmental clerical classes were not surveyed.

² *Report of the Management Consultancy Group*, p. 31.

Table 5.1: Clerical class: Grade, by tenure, sex and salary

	Higher clerical officer	Clerical officer	All
% of class ¹	2	98	100
% permanent ¹	100	84	85
% male ²	86	56	56
Salary	£1,212– £1,457	£351 (at 16)– £750 (at 25) –£1,002 ³	—
(N) ⁴	(1,769)	(92,951)	(94,720)

¹ Calculated from *H.M. Treasury, Introductory Factual Memorandum on the Civil Service*, p. 48.

² These figures were provided by the Central Staff Record and refer to permanent staff only in November, 1966.

³ There is an efficiency bar at £857.

⁴ Permanent and temporary staff on 1st April, 1967.

Women make up 44% of the permanent clerical class (Table 5.1) and this is the highest proportion in any of the classes in our survey, the next highest being less than half as many (21%) among the lower grades of the executive class. However, as the table shows, the women are very much concentrated in the clerical officer grade, only 14% of the higher clerical officer grade being female. This, of course, is congruent with the normal pattern of concentration of women in the lower grades of any class.

Two sample groups were drawn from the permanent clerical class (including the higher clerical officer grade), 183 men and 183 women, which together were amalgamated into a third sample group appropriately weighted to represent the background of the clerical class as a whole. Though only 15% of the whole class are temporary now, some two-thirds of those sampled first entered the Civil Service on a temporary basis (Table 5.2). Many of these initially temporary staff were promoted from the clerical assistant class. For this reason, together with the system of recruiting older people with lower educational qualifications as temporaries who later become established through limited competition, the initially temporary are on average older than their colleagues. Women are in general younger than men in the clerical class but the age distinction between initially temporary and initially permanent staff holds for both sexes (Table 5.2).

The proportion of two-thirds whose initial appointment was temporary is much greater in the clerical than in the executive or administrative classes, thus generally following the pattern for all the Civil Service classes that the lower the authority and responsibility of a class the greater is the reliance on recruitment of temporary staff. However, this proportion is smaller than that for the other subordinate classes, e.g. the scientific assistant class (95% were initially temporary) and the technical works class (91%). In other words, there is a wider pattern; the desk classes at *each* level of authority rely less on initially temporary recruitment than do the scientific or technical classes.

Table 5.2: Clerical class: Age by initial tenure on appointment

Initial tenure	Men				Women				All			
	Under 33	33-50	Over 50	All	Under 33	33-50	Over 50	All	Under 33	33-50	Over 50	All
	%	%	%	%	%	%	%	%	%	%	%	%
Permanent	58	14	28	33	62	20	8	34	61	17	22	34
Temporary	42	86	72	67	38	80	92	66	39	83	78	66
Total	100	100	100	100	100	100	100	100	100	100	100	—
(N)	(53)	(44)	(86)	(183)	(76)	(59)	(48)	(183)	(129)	(103)	(134)	(366)

Length of service

The typically short length of service in the clerical class (Table 5.3) is in marked contrast to that of the lower executive class, of whom 22% were first established before the war and only 15% since 1960. The equivalent figures for the clerical class are 5% and 41% respectively. Moreover, three-quarters of the class was first appointed since the war.¹

The pattern of recruitment differs between male and female staff in two respects. First, more of the present female members first joined the Civil Service during the war (32% compared with 15% of men) when male clerical labour was in short supply; because of post war demobilisation twice as many men as women (34% as against 17%) were first appointed between 1946 and 1949. Second, the higher proportion of women recruited to the Civil Service since 1960 suggests, among other reasons, that there is a faster turnover of female staff. The higher proportion of men first recruited to the Civil Service before the war suggests that men in the clerical assistant and sub-clerical classes have the better prospects of promotion into the clerical class.

Compared with other subordinate classes (especially the technical works class) there exists only a moderate gap between year of appointment and establishment for the clerical class, and most of it is accounted for by the freeze on establishment during the war.

Method of permanent establishment to the Civil Service

The clerical class, like the three other subordinate Civil Service classes, is among the minority of classes included in the Survey where most present members have not been established to the Civil Service by open competition: it accounted for only 21% of the men and a quarter of the women. Yet direct recruitment to established posts in the class is normally through open competitions. The figures cited therefore indicate the marked extent to which the class absorbs promotees, supplies open competition recruits to other classes, and takes in a large proportion of temporaries subsequently established. Negligible proportions of those still in the clerical class were established to the Civil Service via postwar

¹ It may be mentioned, though the figures are not included here, that 70% of the men appointed since the war are now over fifty as are 50% of the women. This indicates that these were at least thirty years old on initial appointment to the Civil Service and thus that there is more recruitment of older people into the clerical class than into the administrative and executive classes.

Table 5.3:
Service

Year	Men				Women					
	Initially temporary		Initially permanent	All (whatever initial tenure)		Initially temporary		Initially permanent	All (whatever initial tenure)	
	Appointed	Established	Appointed and established	Appointed	Established	Appointed	Established	Appointed and established	Appointed	Established
1920-29	% 4	% 7	% 8	% 11	% 1	% —	% 2	% 8	% 5	% 1
1930-39	9				5	3				3
1940-45	15	—	—	10	—	32			21	—
1946-49	34				25	17				27
1950-59	19	93	92	79	33	20	97	92	74	21
1960-66	19				36	29				48
Total	100	100	100	100	100	100	100	100	100	100
(N)	(122)	(122)	(61)	(183)	(183)	(120)	(120)	(63)	(183)	(183)

Table 5.4: Clerical class: Method of permanent establishment to the Civil Service

Method of permanent establishment	Men	Women	All
	%	%	%
Open competition	21	25	22
Post-war reconstruction competition	4	2	3
Nomination	49	26	39
Limited competition	10	20	15
Other ¹	16	28	16
Total	100	100	100
(N)	(183)	(183)	(366)

¹ Mainly special competitions for members of H.M. Forces or the Overseas Civil Service but also includes "assimilation" and "conversion" from non-Civil Service or quasi-Civil Service posts.

reconstruction competitions; the vast majority of successful candidates in these competitions are now in the executive class. Half the men in the class were nominated¹ by departments to their first established post and the limited competition or "other" competitions contributed the other quarter. "Other" includes assimilation and conversion from non-Civil Service posts but refers mainly to special competitions for H.M. Forces and members of the Overseas Civil Service. Limited competition and "other" competitions account for the establishment of nearly half of the women now in the clerical class. "Other" competitions are an important means of permanent establishment to the Civil Service for present members of the lower executive class also, but for no other class. The details are set out in Table 5.4.

The four main methods of permanent establishment to the Civil Service (open competition, limited competition, nomination and "other") account for staff in the clerical class of quite different age and seniority (Table 5.5). Open competition and "other" competitions have been responsible for recruiting relatively high proportions of young people, who have come in since the war, and who have normally been established from the beginning of their service, whereas nomination and limited competition, the two avenues of establishment to the Civil Service for those now in the clerical class with lower educational requirements,² account for older and earlier recruits, most of whom entered the Civil Service initially as temporary clerical officers or clerical assistants.³

All this is to be expected given the rules governing the particular recruitment procedures but it is interesting that open competition and "other" methods have dominated more recent recruitment. For example, 89 % of those who by

¹ Those established by nomination are (i) temporary clerical officers under 20 with only four "O" levels recruited by departments in the London area and subsequently nominated by their department for establishment after seven months of satisfactory service; (ii) clerical assistants and members of sub-clerical grades nominated by their departments for establishment and subsequently promoted to the clerical class.

² See page 144 above.

³ Clerical assistants are eligible for promotion by departmental selection or by limited competition to the clerical officer grade.

Table 5.5: Clerical class: Method of permanent establishment to the Civil Service by age and year of permanent establishment to the Civil Service

Year of establishment	Open competition	Nomination	Limited competition	Other	All ¹
	%	%	%	%	%
Before 1940 (Appointed)	7	9	4	1	6
1940-45	4	28	13	1	15
1946 and after	89	63	83	98	79
Total	100	100	100	100	100
Initial tenure					
	%	%	%	%	%
Permanent	58	20	7	57	34
Temporary	42	80	93	43	66
Total	100	100	100	100	100
Age					
	%	%	%	%	%
Under 33	57	4	8	89	35
33-50	23	30	51	4	27
Over 50	20	66	41	7	38
Total	100	100	100	100	100
(N)	(83)	(136)	(55)	(82)	(366)

¹ Includes staff permanently established by the post-war reconstruction competitions who were too few to warrant separate analysis.

open competition and 98% of those who by "other" means obtained established posts in the Civil Service were first established after the war.¹ This compares with 63% of the nominees and 83% of those permanently established by limited competition. As far as age is concerned 57% of those permanently established to the Civil Service by open competition and 89% of those by "other" means are under thirty-three compared with only 4% of those nominated for permanent establishment in the Civil Service and 8% of those established through the limited competitions.²

Educational qualifications before entry and school leaving age also follow a pattern which is related to the rules governing the various methods of recruitment. Open and "other" competition recruits left school later and had gained more and higher qualifications than those permanently established by limited competition or departmental nomination (Table 5.6). Sixty-four per cent of the nominees and 54% of those established by limited competition left school at fifteen or earlier compared with 43% of the class as a whole and 33% and 10% of the open competition recruits and "other" competition successes

¹ This is because most "other" methods were introduced after the war.

² Departmental promotion into the clerical class is not subject to any age restrictions.

Table 5.6: Clerical class: Method of permanent establishment to the Civil Service, by highest educational qualification obtained before entry into the Civil Service, and by school leaving age

School leaving age	Open competition	Nomination	Limited competition	Other	All ¹
	%	%	%	%	%
15 and under	33	64	54	10	43
16	43	23	29	51	35
17 and over	24	13	16	39	22
Total	100	100	100	100	100
Highest qualification before entry					
	%	%	%	%	%
"A" level(s) and Higher School Certificate	9	4	4	8	5
"O" level(s)	45	13	16	84	37
All other qualifications	9	13	17	1	10
No qualification	37	71	62	6	47
Total	100	100	100	100	100
(N)	(83)	(136)	(55)	(82)	(366)

¹ Includes staff permanently established by the post-war reconstruction competitions who were too few to warrant separate analysis.

respectively. In the clerical class as a whole 71 % of the nominees and 62 % of the limited competition recruits had no qualifications at all before entry. In particular relatively few of them had "O" levels which were possessed by over half of the open competition recruits and 84 % of those established by "other" methods. Such qualifications as they held had been more typically obtained in the further education sector—Royal Society of Arts examinations, apprenticeships, City and Guild qualifications, etc.

Although no table is included, the differing education achievements of staff established in different ways is also reflected in the type of school previously attended. Those established by open competition and "other" methods are recruited more heavily from L.E.A. grammar schools while those established by nomination and the limited competition tend to come more from secondary modern and other non-selective schools. But, rather surprisingly, these last two groups also have higher than average proportions of recruits who had attended direct grant and fee paying schools. These distinctions of educational background between types of recruit do not, however, reflect any marked differences of social and family background. Nor are there any meaningful or consistent correlations between other occupational factors and methods of permanent establishment except that a slightly disproportionate number of those established by open competition now work in Inner London and there is a slight tendency for those established by limited competition to be located in the provinces.

Table 5.7: Clerical class: Location

Location	Men	Women
	%	%
Inner London	24	23
Outer London	10	10
North	25	27
Rest of England and Wales	32	31
Scotland	9	9
Total	100	100
(N) ¹	(215)	(215)

¹ This table is based on figures provided by the Central Staff Record.

Table 5.8: Clerical class: Location by place of birth

Place of birth	Location				
	Inner London	Outer London	North	Rest of England and Wales, and Scotland	All
	%	%	%	%	%
North	9	8	94	16	35
London and South East	61	66	—	16	26
Rest of South and Midlands	16	20	2	31	18
Wales, Scotland and N. Ireland	8	3	4	34	18
Abroad	5	3	—	4	3
Total	100	100	100	100	100
(N)	(78)	(35)	(99)	(154)	(366)

Location

The geographical distribution of the clerical class, set out in Table 5.7, is fairly even over the country, with almost no difference between the sexes. Along with the lower grade of the executive class, the clerical class is, of all the Civil Service classes, the one with the most even regional distribution. Nearly a quarter of its members work in the North.

There is a clear pattern of regional self recruitment (Table 5.8). This is especially so for the North where 94% of the class (98% of the men and 91% of the women) were also born, but appears for all the other regions. For example, a quarter of the class were born in London or the South East but they contribute two-thirds of those working in Outer London.

As may be seen from Table 5.9 which relates work location to social class origins, it is clear that those who work in the North compared with those who work elsewhere, particularly in London, are more likely to have working class

Table 5.9: Clerical class: Social class origins (father's occupation)¹ by location

Location	Men		Women		All	
	Social classes I and II	Social classes III-V	Social classes I and II	Social classes III-V	Social classes I and II	Social classes III-V
	%	%	%	%	%	%
Inner and Outer London	33	29	40	25	36	29
North	13	24	20	36	17	31
Rest of England and Wales						
Scotland	54	47	40	39	47	40
Total	100	100	100	100	100	100
(N)	(40)	(141)	(45)	(122)	(85)	(263)

¹ Too few staff belonged to an unidentifiable or unclassifiable social class ("other") to be analysed with any validity.

origins.¹ However, this social distinction between staff according to their place of work is not at the same time an educational distinction. Our figures (not included) show that men working in the North were relatively less qualified but the reverse relationship holds for the women.

Departmental distribution

The social departments take up the highest proportion of the clerical class (44%) followed by the technical ministries (Table 5.10). This mirrors the departmental distribution of the executive class, especially its lower echelons, and is quite different from that of the administrative class whose staff are more concentrated in the economic and technical departments. Of course, like the other three desk classes, the clerical class is relatively evenly distributed over the four types of ministry when compared with the technical and scientific classes. As in the other Civil Service classes surveyed, where female staff are looked at separately, there is a tendency, though a slight one, for more women than men to be employed in the social ministries at the expense of the technical departments.

There are some differences in age, seniority and initial tenure between members of the class in the different types of department (Table 5.11). Those employed in the economic ministries tend to be older (particularly women) and to have had longer service (especially men). For example, 29% in the economic departments were established before 1940 (or appointed during the war) compared with 21% of the whole class, and 16% are under thirty-three compared with 35% in the clerical class as a whole. Staff in the social ministries, on the other hand, are younger and more recently recruited and tend to have entered initially on a permanent basis. Those in the technical departments were disproportionately recruited during the war years and therefore have entered more as temporaries

¹ This statement is, however, not statistically significant at the 10% level.

Table 5.10: Clerical class: Departmental distribution

Type of department	Men	Women	All
	%	%	%
Economic	14	11	13
Technical	35	31	33
Social	43	45	44
Other	8	13	10
Total	100	100	100
(N)	(183)	(183)	(366)

Table 5.11: Clerical class: Departmental distribution by year of permanent establishment to the Civil Service, initial tenure on appointment, and age

Year of establishment	Economic department	Technical department	Social department	Other department	All
	%	%	%	%	%
Before 1940	16	5	5	2	6
(Appointed) 1940-5	13	26	7	15	15
1946 and after	71	69	88	83	79
Total	100	100	100	100	100
Initial tenure					
	%	%	%	%	%
Permanent	30	23	46	22	34
Temporary	70	77	54	78	66
Total	100	100	100	100	100
Age					
	%	%	%	%	%
Under 33	16	29	44	37	35
33-50	30	24	26	38	27
Over 50	54	46	30	26	38
Total	100	100	100	100	100
(N)	(46)	(121)	(161)	(38)	(366)

and are slightly older. This is an exception to the pattern we have found in the other desk classes and the legal class where the staff of the social ministries tends to be older and to have served longer, while those in the technical ministries are comparatively recently recruited and young.

Methods of entry into the Civil Service of staff in different types of department also differ (Table 5.12). The economic and technical ministries have a slightly disproportionate number of nominees; the technical departments have a more than average share of those who came in by limited competition and the social

Table 5.12: Clerical class: Departmental distribution by method of permanent establishment to the Civil Service

Method of permanent establishment	Economic department	Technical department	Social department	Other department	All
	%	%	%	%	%
Open competition	23	22	17	33	21
Post-war reconstruction competition	—	2	6	7	4
Nomination	54	53	49	20	49
Limited competition	8	14	5	27	10
Other	15	9	23	13	16
Total	100	100	100	100	100
(N)	(46)	(121)	(161)	(38)	(366)

Table 5.13: Clerical class: Age

Age	Men	Women
	%	%
17-20	12	17
21-25	10	20
26-30	5	3
31-35	3	3
36-40	5	5
41-45	8	12
46-50	11	13
51-55	14	12
56-60	19	9
61-65	13	5
Over 65	2	—
Total	100	100
(N)	(183)	(183)
Average age	45.2	38.3

departments have a relatively high proportion of those who entered the Civil Service by "other" methods, that is by special competition mainly. This fits with the picture we already have of the relatively younger age composition of those entering by "other" methods and with the relative concentration of younger and more junior staff in the social departments.

DEMOGRAPHIC COMPOSITION

Age and marital status

The clerical class is unlike any other in its high proportion of young and old members (Table 5.13). About a quarter of the men and 40% of the women are under thirty, and nearly half of the men and over a quarter of the women are over fifty. The women are, on average, younger than the men (38.3 years compared to 45.2).

This division of the clerical class into a relatively old and a relatively young group partly matches a division between those who entered the Civil Service directly from school by the open competition or other special competitions, many of whom are destined for promotion into the general or departmental executive classes, and an older group with previous outside occupational experience or service in the clerical assistant class who via nomination or limited competition became permanently established and who tend especially to be concentrated in the economic or "other" departments.

The clerical class is compared in terms of age and marital status with clerks in industry and the British population generally in Table 5.14. There is a high proportion of bachelors but, as the Table shows, this is entirely a matter of youth; the proportion of males aged sixteen to sixty-five in Great Britain who are single is very similar (27%). Fewer of the male clerks surveyed in Liverpool by Dale are bachelors (23%) but this again is probably a matter of age. Comparison with the British male population aged sixteen to sixty-five suggests that the male clerical class marry later than the national male average. Of those under thirty-three only 30% were married compared with 44% of the national male population in the same age group.

Women in the clerical class are more likely to be, or to have been, married than women in other classes. There is nonetheless a substantial proportion (54%) of spinsters and a much higher proportion than bachelors in the two age groups over thirty-three. Thus, if outside the professions, the Civil Service still offers considerably better opportunities to women for work than most other occupations, it is mainly to those not married. It is possible that the figures in Table 5.14, by not recording the "wastage" of married women at pregnancy and therefore their high turnover rate, do not adequately reflect the extent of their employment in the clerical class. Nevertheless, there is a high proportion of single women in the under thirty-three age group (70%). Moreover, spinsters are a higher proportion of the female clerical class (54%) than they are of not only the general female population at all three age levels (sixteen to thirty-two, thirty-three to fifty and over fifty), but also of the *economically active* female population aged sixteen to sixty-five (43%).¹ The proportion of widows etc. in the fifty to sixty-five age group is nearly twice as great as in the national female population of the same age group (Table 5.14).

SOCIAL BACKGROUND

Geographical origins

The geographical origins of the clerical class are set out in Table 5.15 and compared with the residential distribution of the United Kingdom population at the census year nearest to the average year of birth of each sample group, and also with the geographical distribution of the French equivalent of the clerical class. Of the five regions the North provides the greatest proportion. No other Civil Service class has as many "Northerners" and the clerical class is probably the only one which has a proportion of Northerners close to or even slightly over-representing the regional distribution of the general population; and, in general, nationally representative geographical origins. Comparing Britain with France it seems that a slightly smaller proportion of female "agents d'exploita-

¹ Calculated from figures on p. 22 of the *Sample Census 1966, Great Britain, Summary Tables*.

Table 5.14: Clerical class, clerks in industry¹, and Great Britain population 1961²: Marital status by age

Marital status	Clerical class				Clerks in industry ¹ (Men)	Great Britain male population 1961 ²				Clerical class				Great Britain female population 1961 ²			
										Women							
	All	Under 33	33-50	Over 50		All	16-32	33-50	51-65	All	Under 33	33-50	Over 50	All	16-32	33-50	51-65
Single	%	26	70	11	%	27	57	11	%	54	70	51	%	22	42	9	%
Married	71	30	89	87	77	71	43	87	87	34	30	39	35	72	57	88	71
Widowed/ separated/ divorced	3	—	—	7	—	2	—	2	5	11	—	10	31	6	1	3	17
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(183)	(53)	(44)	(86)	(208)					(183)	(76)	(59)	(48)				

¹ J. R. Dale, *The Clerk in Industry*, p. 32, Liverpool University Press, 1962.² Calculated from figures on pp. 2, 3 of the *Sample Census 1966, Great Britain, Summary Tables*.

Table 5.15: Clerical class and "petits fonctionnaires"¹: Place of birth; and distribution of the Great Britain population 1921² and 1931²

Region	Clerical class			"Petits fonctionnaires" ¹	Residence of Great Britain population in	
	Men	Women	All	Agents d'exploitation féminins	1921 ²	1931
	%	%	%		%	%
North	11	9	11	Greater Paris area: 23% (14% of the French population)	32	32
East and West Riding	7	8	7			
North West	9	15	12			
North Midlands	5	4	5			
London and South East	25	27	26			
Rest of Midlands	5	5	5	Provinces:	23	23
East	4	4	4			
Rest of South	4	4	4			
South West	8	4	6			
Wales	5	7	6			
Scotland	12	11	12	77% (86% of the French population)	20	19
N. Ireland	—	1	—			
Abroad	5	1	3			
Total	100	100	100		100	100
(N)	(183)	(183)	(366)	(2,500)		

¹ M. Crozier, *Petits fonctionnaires au Travail*, p. 17, Centre Nationale de la Recherche Scientifique, 1955. "Agents d'exploitation" is the grade among the "petits fonctionnaires" considered most comparable with the clerical class. They could include among them, however, a few whose duties would be more equivalent to those of the clerical assistant or even the typing and secretarial classes. The force of the comparison with the clerical class is not affected as a result.

² Calculated from figures in Tables III and VIII of the *Census of England and Wales*, 1931, Preliminary Report.

tion" come from the capital (23% from Paris compared with 27% from London) but as the relative concentration of the French population in Paris is slightly less than of Britain's in London, the degree of metropolitan over-representation in France is equal to, if not greater than, that in the United Kingdom.

There is some association between geographical origins and educational background among members of the clerical class (Table 5.16). The proportions of those from the North who attended L.E.A. non-selective schools (i.e. comprehensive, secondary modern or technical schools, or their past equivalents) is 46%, and the comparable figure for those from Scotland, Wales and Northern Ireland is 37%; but both these figures are relatively low when compared with staff born in London and the South East, 58% of whom come from L.E.A. non-selective schools. But those born in London or the South and Midlands are rather more likely to have attended a direct grant or fee paying school. These differences in the school background of the clerical class born in different regions of the country reflect to some extent the regional distribution of types of school. According to Department of Education and Science statistics for 1962 a slightly higher proportion of children in Wales and Scotland attend L.E.A.

Table 5.16: Clerical class: Place of birth by highest educational qualification obtained before entry into the Civil Service; and, with England and Wales school population 1966¹: Place of birth by type of full-time school last attended

Type of school	Clerical class					England and Wales school population 1966 ¹			
	Born in				All ³	North	London and South East	Rest of South and Midlands	All ²
	North	London and South East	Rest of South and Midlands	Wales, Scotland and N. Ireland					
Secondary modern, technical and comprehensive L.E.A. grammar Direct grant, public school and fee paying Schools abroad and other Total	%	%	%	%	%	%	%	%	%
	46	58	46	37	47	62	51	59	57
	50	24	43	53	41	23	19	19	21
	3	16	10	11	9	13	22	17	17
Highest qualification before entry	1	2	2	—	3	2	8	5	6
	100	100	100	100	100	100	100	100	100
	%	%	%	%	%	%	%	%	%
	3	1	6	20	5				
"A" level and Higher School Certificate "O" level All other qualifications No qualification Total	44	25	37	36	37				
	8	14	6	11	10				
	46	60	51	33	47				
	100	100	100	100	100				
(N)	(128)	(96)	(68)	(64)	(366)				

¹ Department of Education and Science, *Statistics of Education, 1966*, Vol. I pp. 14-15, H.M.S.O., London, 1967.

² Includes the Welsh secondary school population.

³ Includes staff from abroad who were too few to warrant separate analysis.

grammar schools than in the country as a whole; and the South is the region with the highest proportion of school children attending non-selective secondary schools.

A similar pattern exists for educational qualifications obtained before entry to the Civil Service. Of the Northerners 44% obtained "O" levels as their highest qualification compared with 37% of the class as a whole; and 20% of those born in Scotland, Wales or Northern Ireland have taken "A" levels or the Higher School Certificate compared with 5% of the class as a whole. Those born in the South and Midlands or London and the South East have fewer qualifications than their colleagues and among those with qualifications, "A" levels are relatively infrequent compared with "O" levels or further qualifications such as Royal Society of Arts or City and Guilds certificates. But the majority of those from the South and Midlands (57%) or London and the South East (60%) have no qualifications compared with 46% of those from the North and 33% of those from Scotland, Wales and Northern Ireland.

Social class origins

The distribution of the clerical class by social class origins is compared with that of the clerks outside the Civil Service and "petits fonctionnaires" in Table 5.17. As in the other classes of the Civil Service, women tend to have slightly "superior" social origins to those of men but the difference, in the clerical class are less than elsewhere. Because the median man and woman in the clerical class is the child of a skilled manual father their social experience is one of net upward social mobility in the traditionally important sense of having crossed the line between manual and non-manual work.

It is not easy to compare the social origins of the Civil Service clerical class with other clerks because of the different social class categories used and the different times at which the surveys were taken. The comparative figures available for British clerks in general (the "black-coated" workers referred to in Table 5.17) are from a sample taken in 1947, and those for "clerks in industry" come from a sample in 1960/61. However, it would seem that compared with British clerks in general, the clerical class is rather less middle class in origin—and considerably less than "clerks in industry". Certainly, recruitment from the white collar social classes (i.e. social class III(i) and above) into the clerical class has declined since before the war.

As in all subordinate Civil Service classes a relatively small proportion of the clerical class have fathers who were also civil servants—8% of the men and 9% of the women. This figure is very close to the proportion of clerks whose fathers were also clerks¹ (no table included).

EDUCATIONAL BACKGROUND AND QUALIFICATIONS

Educational qualifications before entry

The highest educational qualifications on joining the Civil Service of present members of the clerical class are set out in Table 5.18 and compared with those of female "agents d'exploitation" in the French Civil Service. Of all the classes in this survey the clerical class has the fewest formal qualifications, over half the men and 40% of the women having no qualifications before entry compared, for

¹ J. R. Dale, *op. cit.*, p. 32.

Table 5.17: Clerical class, "black coated workers,"¹ clerks in industry,² and "petits fonctionnaires"³; Social class origins (father's occupation)

Father's occupation	Clerical class			"Black coated workers" ¹		Clerks in industry ²	"Petits fonctionnaires" ³
	Men	Women	All	Men	Women		
I Higher professional and managerial	%	%	%	%	%	%	%
	2	4	3	6	5	8	
II Intermediate professional and managerial	20	20	20	19	25	32	2
III (i) Skilled non-manual	12	9	11	34	25	33	43
(ii) Skilled manual	36	38	37	30	29		17
IV and V Semi and unskilled	24	19	22	12	17	26	9
Other	7	9	8			1	29 including 14% farmers and farmworkers
Total	100	100	100	100	100	100	100
(N)	(183)	(183)	(366)	(214)	(494)	(208)	(2,500)

¹ David Lockwood, *The Blackcoated Worker*, pp. 108, 111, Allen and Unwin, London, 1958. The sample was taken in 1947.² J. R. Dale, *op. cit.*, p. 33.³ M. Crozier, *op. cit.*, p. 16.

Table 5.18: Clerical class and "petits fonctionnaires"¹: Educational qualifications obtained before entry into the Civil Service

Qualification before entry	Clerical class			"Petits fonctionnaires" ¹
	Men	Women	All	Agents d'exploitation féminins
	Highest qualification			Total qualifications
	%	%	%	%
University higher and first degree; membership of a professional institution; university diploma;				
Dip. Tech.	1	1	1	
"A" level(s)	2	1	1	13 (<i>le baccalaureat</i>)
Higher School Certificate, and Higher National Certificate	5	4	4	
"O" level(s)	30	45	37	67 (<i>le brevet</i>)
Ordinary National Certificate; Royal Society of Arts and City and Guilds examinations; industrial apprenticeships; other qualifications	10	10	10	28
No qualification	53	40	47	
Total	100	100	100	
(N)	(183)	(183)	(366)	(2,500)

¹ M. Crozier *op. cit.*, p. 18

example, with about a third of the (male) draughtsmen and technical works classes. Those members who do have some sort of qualification may be divided into three groups: (i) a small minority consisting of 8% of the men and 6% of the women with "higher" qualifications, i.e. at least one "A" level, Higher School Certificate, Higher National Certificate or above; (ii) the main bulk of the qualified, with at least one "O" level, amounting to 30% of the men and 45% of the women; and (iii) another small minority with "other" qualifications consisting mainly of Royal Society of Arts examinations, City and Guild certificates, and the Ordinary National Certificate, i.e. elementary commercial qualifications. It should be emphasised once more that these statistics refer to *present* members of the clerical class which has always been "creamed" of its best educated members by promotion into the executive class and has always absorbed members with lower qualifications by promotion from the clerical assistant and sub-clerical classes.

Female "agents d'exploitation" in the French Civil Service appear to be better qualified than their British counterparts, 13% having *le baccalaureat* which is equivalent to "A" level and two thirds possessing the equivalent of "O" level, i.e. *le Brevet* and *le Brevet Supérieur*. Thus the comparison of proportions with at least an "O" level qualification is 54% for the French and 45% for the British. Moreover, 28% of the French sample had other qualifications similar to the category "other" which we have described for the British.

Dale's study suggests that more clerks in industry than in the Civil Service were studying or had qualified in specifically commercial or clerical subjects: 7% had passed either the intermediate or final examination of a professional

Table 5.19: Clerical class, "black coated workers",¹ England and Wales secondary school population 1960² and Great Britain 1961³: School leaving age

School leaving age	Clerical class			"Black coated workers" ¹		England and Wales secondary school population aged 13 in 1960 ²		Great Britain population aged over 15 in 1961 ³
	Men	Women	All	Men	Women	Men	Women	All
	%	%	%	%	%	%	%	%
14 and under	34	18	27	48	41	—	—	59
15	15	17	16	17	26	53	62	23
16	32	38	35	22	21	26	23	11
17	11	17	13	} 13	} 12	15	12	} 7
18 and over	9	9	9			7	4	
Total	100	100	100	100	100	100	100	100
(N)	(183)	(183)	(366)	(214)	(494)			
Average school leaving age	15.6	15.7	15.6	15.0	15.0	15.9	15.7	14.7

¹ D. Lockwood, *op. cit.*, p. 121.

² Department of Education and Science, *op. cit.*, p. 32.

³ Calculated from figures in Table 38 of the *Sample Census 1961, Great Britain, Summary Tables*. Figures strictly relate to terminal education age, not school leaving age.

institution and a further 8% were studying for them. Sixteen per cent had qualifications in elementary commercial subjects and 27% possessed "O" levels.¹ This difference in educational background between industrial and Civil Service clerks is not narrowed even if the educational qualifications obtained by the clerical class after joining the Civil Service are taken into account.

School leaving age

Nearly half of the men in the clerical class left school at fifteen or earlier (49%) and on this measure this class is worse educated than any other except for the technical works class. About a third left school at sixteen and a fifth at seventeen or later. The average school leaving age was 15.6 years (Table 5.19). The women in the clerical class have had a slightly longer schooling by comparison with their male colleagues. In his earlier study of clerks in Britain, Lockwood reported a younger average school leaving age: 65% of his male clerks having left school at fifteen or earlier compared with our 49%, and 33% of his female clerks having stayed on in school until sixteen or beyond compared with our 64%.² Part of the difference is no doubt due to the fact that Lockwood was looking at an earlier generation of clerks. As we shall see (Table 5.20) it is the most recently recruited and younger members of the clerical class who have had an extended schooling. Nevertheless it seems likely that the Civil Service clerks have, on average, a rather better educational record than clerks in general. They

¹ *Op. cit.*, chapter 5.

² *Op. cit.*, p. 121

Table 5.20: Clerical class: School leaving age by year of permanent establishment to the Civil Service and initial tenure of appointment, and, with Great Britain 1961¹: School leaving age by age

Age	Clerical class				Great Britain population aged 15 or over in 1961 ¹			
	Left school aged				Finished education aged			
	15 and under	16	17 and over	All	14	15	16	17 and over
	%	%	%	%	%	%	%	%
Under 33	9	53	56	35	19	77	51	47
33-50	36	23	17	28	59	18	39	40
Over 50	56	24	27	38	21	5	10	13
Total	100	100	100	100	100	100	100	100
Initial tenure								
	%	%	%	%				
Permanent	23	40	46	34				
Temporary	77	60	54	66				
Total	100	100	100	100				
Year of establishment								
	%	%	%	%				
Before 1940	9	4	2	6				
(Appointed) 1940-5	22	11	9	15				
1946 and after	69	85	89	79				
Total	100	100	100	100				
(N)	(155)	(127)	(83)	(366) ²				

¹ Calculated from figures in Table 38 of the *Sample Census 1966, Great Britain, Summary Tables*. Figures strictly relate to terminal education age, and not school leaving age.

² One respondent gave no information on school leaving age.

are too, of course, educationally superior in relation to the general population.¹ It is clear from Table 5.20 that the early leavers (i.e. aged fifteen or earlier) tend to have been older recruits to the Civil Service and have entered as temporaries and that it is only since the war that seventeen year old school leavers with higher educational qualifications have been recruited in any numbers. For example, recruits established since the war contribute 79% of the clerical class as a whole but 89% of those who had stayed on at school until at least seventeen.

¹ Note that many of the present clerical class attended school before the minimum leaving age was raised to fifteen. Thus their average school leaving age is lower than that of the 1961 school population despite a higher proportion who left school at sixteen or later. Their average school leaving age is still, however, considerably higher than that of the national population.

Table 5.21: Clerical class: School leaving age by social class origins (father's occupation)

Father's occupation	Men				Women				All			
	Left school aged				Left school aged				Left school aged			
	15 and under	16	17 and over	All	15 and under	16	17 and over	All	15 and under	16	17 and over	All
	%	%	%	%	%	%	%	%	%	%	%	%
Higher and intermediate I professional and II managerial	11	31	35	22	18	23	35	24	14	27	34	23
III (i) Skilled non-manual	11	14	11	12	11	9	8	9	11	11	10	11
III (ii) IV and V Skilled manual and semi and unskilled	70	50	48	59	62	59	49	57	67	55	49	59
Other	8	5	6	7	9	9	8	9	8	7	7	8
Total	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(90)	(58)	(35)	(183)	(65)	(69)	(48)	(183) ¹	(155)	(127)	(83)	(366)

¹ One respondent gave no information on school leaving age.

And of these, 56% are under thirty-three compared with 35% of the class as a whole. It should be noted however, that these differences may be exaggerated by the process whereby older, earlier recruited members with an extended schooling have been "creamed" off into the executive class, whereas those with the statutory minimum schooling have been "absorbed" from the clerical assistant class.

There is a correlation between age of school leaving and social class origins in the clerical class (Table 5.21). Thus 35% of the later school leavers (seventeen or after) are the sons of middle class fathers (social classes I and II) while only 11% of the early school leavers come from middle class families. In contrast, while 48% of the later school leavers are the sons of manual workers, 70% of the early school leavers are sons from these families; and 42% of the early female school leavers are the daughters of manual workers compared with 49% of those who left school at seventeen or later.

There is a clear association between a late school leaving age and superior educational qualifications (Table 5.22). Among the early school leavers 80% of them left school with no qualifications compared with only 18% of the late school leavers of whom over half had "O" levels and one-fifth "A" levels or the Higher School Certificate on entering the Civil Service. There is a similarly strong correlation between the age they left school and the type they attended: 85% of the early school leavers attended a local authority non-selective secondary school compared with 47% of the clerical class as a whole and only 6% of the late school leavers, of whom two thirds went to a L.E.A. grammar school and one-fifth to a direct grant or independent fee paying school.

Our analysis of school leaving age further illustrates the existence of an essential division in the clerical class. On the one hand there are the more recent, younger recruits who have entered the Civil Service directly from school by open or "other" competitions and become immediately established on the basis of their educational qualifications. On the other hand, there are the earlier,

Table 5.22: Clerical class: School leaving age by type of full-time school last attended, and by highest educational qualification obtained before entry into the Civil Service

Type of school	Left school aged			
	15 and under	16	17 and over	All
	%	%	%	%
Secondary modern, technical and comprehensive	85	25	6	47
L.E.A. grammar	11	63	67	41
Direct grant, public school and other fee paying	3	10	21	9
Schools abroad and other	2	2	6	3
Total	100	100	100	100
Highest qualification before entry				
	%	%	%	%
"A" levels, Higher School Certificate and above	2	3	19	5
"O" level(s)	7	64	53	37
All other qualifications	11	9	9	10
No qualification	80	24	18	47
Total	100	100	100	100
(N)	(155)	(127)	(83)	(366) ¹

¹ See footnote to Tables 5.20 and 5.21.

older recruits. They tend to have come via a non-academic route on the basis of occupational experience outside the Civil Service or at least outside the clerical class. They tend to have attended non-selective L.E.A. schools to the statutory minimum school leaving age and to have begun life in working class families climbing to their present positions from temporary posts to established ones and from the clerical assistant and sub-clerical classes to their present position.

OCCUPATIONAL EXPERIENCE

Previous field of employment

Only 23% of the men and 37% of the women in the clerical class have spent all their working life in the Civil Service. This is in marked contrast with the "careerism" of other desk classes, and also equal to or lower than that of other classes of a similar authority but different functions (for example, the technical works or the scientific assistant classes). The details are set out in Table 5.23. For women to have had less outside occupational experience is not peculiar to the clerical class but typical of all the Civil Service classes and is partly a function of age and partly a consequence of equal pay for men and women in the Civil Service. Those who have had occupational experience outside the Civil Service have been almost all in industry and commerce and, in the case of the men, also the armed and local uniformed services.

Table 5.23: Clerical class: Field of employment before joining the Civil Service

Field of employment	Men	Women	All
	%	%	%
None	23	37	30
Industry	33	23	} 54
Commerce	37	35	
Education	1	2	1
Local government	3	5	4
Armed forces and local uniformed services	26	2	15
Communications	2	2	} 17
Social services	—	4	
Agriculture, forestry and fishing	6	2	
Other	10	9	
(N) ¹	(183)	(183)	(366)

¹ Totals add up to over 100 because some staff were previously employed in more than one field.

Lockwood¹ cites a study of labour mobility made in 1945–49 in which it is calculated that 49% of those who were clerks had always been clerks. In Dale's sample² 57% had always served in clerical work. Comparison between the clerical class and other clerks outside the Civil Service must be treated with some caution because we do not know whether the categories of previous and initial employment in the other studies refer to occupation or industry. Nevertheless if we combine clerical class staff who have worked only in the Civil Service with those who were previously in commerce we arrive at higher proportions: 60% of the men and 72% of the women have been engaged in clerical work.

Staff whose occupational experience is confined to the Civil Service tend to be younger than their colleagues: 72% of them are under thirty-three years of age compared with 35% of the class as a whole. Conversely, those who had previously served in industry, commerce or the armed forces, etc., include 46% who are over fifty compared with 38% for the group as a whole. The figures are set out in Table 5.24 from which it may also be seen that work experience outside the Civil Service has become rather more common among recruits to the Civil Service since the war.

The great majority of those who came into the Civil Service from a job outside did so initially on a temporary basis except for the small group of men who were recruited from local government. But it should also be noticed (Table 5.24) that about half of those who entered directly into a Civil Service career without having had an outside job first, were initially on temporary appointments and this is a measure of the number of "career Civil Servants"³ who have been promoted into the clerical class from the clerical assistant and sub-clerical classes, together with those established in the class by nomination or limited competitions after joining initially in a temporary capacity.

¹ *op. cit.*, p. 58.

² *op. cit.*, p. 17.

³ For a definition, see Chapter III, p. 102.

Table 5.24: Clerical class: Field of employment before joining the Civil Service by year of permanent establishment to the Civil Service, initial tenure on appointment and age

Year of establishment	No previous employment	Previously employed in				
		Industry and commerce	Local government	Armed forces etc.	Other	All ¹
	%	%	%	%	%	%
Before 1940	10	3	—	12	2	6
(Appointed) 1940-5	12	17	—	8	18	15
1946 and after	78	80	100	80	80	79
Total	100	100	100	100	100	100
Initial tenure						
	%	%	%	%	%	%
Permanent	54	27	49	18	17	34
Temporary	46	73	51	82	83	66
Total	100	100	100	100	100	100
Age						
	%	%	%	%	%	%
Under 33	72	20	34	8	13	35
33-50	14	35	34	25	33	27
Over 50	14	46	32	67	54	38
Total	100	100	100	100	100	100
(N)	(111)	(196)	(15)	(51)	(66)	(366)

¹ Includes staff who were previously employed in the field of education of whom there were too few for separate analysis.

Educational qualifications after entry

A 15% minority of the clerical class have taken further qualifications since entering the Civil Service (14% of the men and 17% of the women). This is a smaller proportion than that reported by Dale for his sample (21%),¹ and is also smaller than for comparable classes of the Civil Service, for example the technical works and scientific assistant classes. The qualifications gained were almost entirely confined to "O" levels and the minor examinations of the Royal Society of Arts or City and Guilds.²

From Table 5.25 it is possible to see the relations between pre and post entry qualifications and the trends over time in the taking of the latter. The minority who have gained qualifications since entering the Civil Service were disproportionately recruited before the end of the war though it should be noticed that among men those with such qualifications tend to be younger than their colleagues of equal length of service.

¹ *Op. cit.*, p. 56.

² Many members may have obtained "A" level passes during service in the clerical class and entered the executive class.

Table 5.25: Clerical class: Highest educational qualification obtained after entry into the Civil Service by year of permanent establishment to the Civil Service, age and highest educational qualification obtained before entry into the Civil Service

Year of establishment	Men		Women		All	
	obtained after entry into the Civil Service					
	No qualification	"Other" qualifications ¹	No qualification	"Other" qualifications	No qualification	"Other" qualifications
	%	%	%	%	%	%
Before 1940	5	24	3	11	4	16
(Appointed) 1940-5	9	16	20	29	14	22
1946 and after	86	60	77	60	82	62
Total	100	100	100	100	100	100
Age						
	%	%	%	%	%	%
Under 33	27	44	42	36	33	41
33-50	25	20	30	46	27	31
Over 50	49	36	28	18	40	28
Total	100	100	100	100	100	100
Highest qualification before entry						
	%	%	%	%	%	%
Higher School Certificate						
"A" level(s), and higher qualifications	9	—	6	4	7	2
"O" level(s)	26	52	47	39	35	47
All other qualifications	10	12	7	18	8	15
No qualification	56	36	40	39	49	36
Total	100	100	100	100	100	100
(N)	(158)	(25)	(152)	(28)	(310)	(53)

¹ i.e. in the case of the clerical class "O" level or Ordinary National Certificate standard, and below. Too few gained higher qualifications to warrant separate analysis.

It is not typically those who are least qualified at entry into the clerical class who go on to obtain some kind of qualification after entry but, on the contrary, those who already possess "O" levels or elementary commercial qualifications who add to their educational record in an attempt to reach the executive class.¹ Thus, while those with no educational qualifications at entry make up 49% of

¹ Or as former clerical assistants, attempting to win promotion into the clerical class. The Management Consultancy Investigation noted that there were "admirable" day release arrangements to encourage young clerical assistants to take the additional "O" levels which would facilitate their entry to the clerical class. "At Central Office, Newcastle, where the complement of clerical officers and clerical assistants is about 7,000, some 1,200 staff were on day release courses and about half of these were clerical assistants preparing for the limited clerical officer examination or clerical officers preparing for the executive officer examination." (p. 34.)

Table 5.26: Clerical class and local government electors:¹ Nominal and active membership of organisations and voluntary associations

Type of organisation	Clerical class						Local government electors ¹
	Men		Women		All		Nominal membership
	Nominal members	Active members	Nominal members	Active members	Nominal members	Active members	
	%	%	%	%	%	%	%
None	15	57	18	77	17	66	39
Professional bodies connected with work	2		1	1	2	1	27
Other associations connected with work	49	22	49	11	49	17	
Clubs and societies connected with social and leisure activities	67	20	54	8	60	15	17
Religious and church-connected associations	18	8	17	4	17	7	10
Civic groups	11	4	10	3	11	4	7
Associations connected with education and training	16		20	4	18	6	5
Public bodies and committees	3	1	4	1	4	1	1
Other associations connected with welfare	1	1	—	—	1	1	3
Any other associations, societies, etc.	12	1	10	3	11	2	X
(N) ²	(183)	(183)	(183)	(183)	(366)	(366)	(X)

¹ M. Horton, *op. cit.*² Totals add up to over 100 because some staff were nominal or active members of more than one type of organisation.

the clerical class as a whole, they contribute only 36% of those who successfully took examinations after entry (Table 5.25).

PROFESSIONAL AND LEISURE ACTIVITY

Membership of voluntary associations

Nominal and active membership of voluntary associations is set out in Table 5.26. A lower proportion of the clerical class are "joiners" than of any other Civil Service class in this survey although more belong to each type of association than the adult population in general (except for welfare societies). Male participation is higher, as it is in the Civil Service generally. Among the men 57% and among the women 77% do not participate *actively* in any organisation at all.

Dale reports¹ that only 13% of his sample were members of a clerical union compared with 49% of the clerical class who were presumably referring to membership of the Civil Service Clerical Association when claiming to belong nominally to a non-professional body connected with work.² This figure of

¹ *Op. cit.*, p. 37-48.² This figure is considerably lower than that claimed by the C.S.C.A.

49% compares with the 5% of industrial and commercial clerks who are unionised, 35% of bank clerks and 80% of local government and railway clerical workers and 25% of all clerks according to Lockwood's study.¹ It contrasts also with the 27% of the local government electors who claimed to belong to any work-connected association. Lockwood's figures refer to 1951 and it is reasonable to assume that unionisation of clerical workers outside the central Civil Service has increased considerably since that time. None of Dale's sample were members of staff associations because none of the companies involved had staff associations; but Dale asked his sample whether they would join one if the company organised it and these figures are perhaps worth citing. In answer to a question, "Should there be a staff association?" 46% answered "yes", and 73% gave answers ranging from an unqualified "yes" to "probably" when asked, "If there were a staff association would you join it?". Only 2% of the sample were members of a clerical friendly society. All in all the Civil Service clerical workers appear to have a greater proportion of staff who are members of work connected but non-professional bodies compared with clerks in general, and in particular industrial and commercial clerks.

In other Civil Service classes we have noted that nominal and active membership is greater among those who work in the provinces compared with those who work in London. But in the case of the clerical class no such correlation emerges from our survey.

As may be seen from Table 5.27 it is the better educated as measured by school leaving age and the more middle class as measured by father's occupation, who tend more frequently to be involved in outside organisations. Thus, those with a social class I and II background make up 23% of the class but only 16% of the non-joiners whereas those from the manual working class (social classes III(ii), IV and V) make up 59% of the clerical class but as much as 62% of the non-joiners. Social class differences count less for active participation but are still in the same direction.

Readership of the daily and weekly press²

In its newspaper reading habits the clerical class is typical of the other three subordinate Civil Service classes—the technical works, draughtsman and scientific assistant classes. Very few fail to read some daily newspaper regularly but sizeable minorities are not regular readers of a Sunday newspaper (19% of the men and 31% of the women (Table 5.28)). As we have seen in other classes, women read less regularly than men and those who do are readers of a smaller range of newspapers. Only the *People* is read by considerably more women than men (38% compared with 23%). The greatest gap in readership between men and women is among the middlebrow papers—the *Daily* and *Sunday Express*, the *Sun*, and the *Daily Mail*. The *Daily Express* is the most popular newspaper, being read by 39% of the men and 34% of the women, as is its Sunday counterpart which is read by 45% of the men and 40% of the women. The *Daily Mail*, the *Daily Mirror*, the *Daily Telegraph*, the *Sunday Mirror* and the *People* are in the second line of popularity. The typical clerical class member reads a middlebrow newspaper. Nevertheless the class contains the highest proportion of the daily and Sunday tabloid readers. Of the serious daily newspapers, the

¹ *Op. cit.*, p. 138.

² Many statements in the following paragraph are significant only at 10% level.

Table 5.27: Clerical class: Nominal and active membership of organisations and voluntary associations by social class origins (father's occupation) and school leaving age

Father's occupation	Nominal members of organisations connected with						Active members of organisations connected with				All
	No organisation	Work	Social and leisure activities	Church and religion	Civic affairs	Other	No organisation	Work	Social and leisure activities, church and religion	Other	
I and II Higher and intermediate, professional and managerial	%	%	%	%	%	%	%	%	%	%	%
III (i) Skilled non-manual	16	25	28	34	33	28	21	32	24	36	23
III (ii) IV and V	8	13	12	12	13	14	9	15	18	13	11
Other	62	56	55	48	51	50	60	52	51	43	59
Total	100	100	100	100	100	100	100	100	100	100	100
School leaving age											
15 and under	%	%	%	%	%	%	%	%	%	%	%
16	51	36	42	35	44	34	43	42	42	44	43
17 and over	30	37	34	35	34	44	34	32	37	44	35
Total	19	27	24	30	22	22	22	26	21	12	22
(N)	100	100	100	100	100	100	100	100	100	100	100
	(61)	(178)	(219)	(62)	(40)	(120)	(247)	(61)	(63)	(41)	(366)

Table 5.28: Clerical class, adult population of Great Britain 1964/5¹ and Great Britain adult population with a T.E.A. (terminal education age) of 15 or under, and 16-18:² Readership of daily and Sunday newspapers

Daily newspaper	Clerical class			Great Britain adults 1964/5 ¹	Great Britain adults ² with a T.E.A. of	
	Men	Women	All		15 or under	16-18
	%	%	%	%	%	%
Times	2	5	4	2	1	7
Guardian	11	5	9	2	1	6
Daily Telegraph	26	22	24	8	4	27
Daily Express	39	34	60	31	32	38
Daily Mail	26	21		16	16	24
Sun ⁴	10	5		13	14	6
Daily Mirror	26	23	29	37	42	23
Daily Sketch	4	6		7	9	6
None	3	6		X	X	X
Sunday newspaper						
	%	%	%	%	%	%
Sunday Times	19	16	18	8	4	22
Observer	15	14	15	5	2	12
Sunday Telegraph	17	9	14	6	3	15
Sunday Express	45	40	43	26	25	46
News of the World	19	18	36	40	50	21
Sunday Mirror	23	25		33	39	22
Sunday Citizen	2	2		2	2	1
The People	23	38	25	39	48	25
None	19	31		X	X	X
(N) ³	(183)	(183)	(366)	(X)	(12,896)	(2,471)

¹ Institute of Practitioners in Advertising, *National Readership Survey*, October 1964 to March, 1965, London.

² M. Abrams, *Education, social class and reading of newspapers and magazines*, p. 19.

³ Totals add up to over 100 because many staff read more than one daily or Sunday newspaper.

⁴ The *Daily Herald* for columns 4, 5 and 6. Little change in the readership for the *Sun* is likely.

Daily Telegraph has the most readers and very few read the *Guardian* or the *Times*. The serious *Observer* or *Sunday Times* is read by 32% of the men and 27% of the women but there again the class generally has the highest proportion amongst the classes sampled of those who read one of the tabloid Sunday newspapers. Compared with the national adult population, however, greater proportions of the clerical class read serious and middlebrow newspapers. Indeed, although nearly half the class left school at fifteen or earlier, its pattern of newspaper reading is closer to that of the national population who completed their education aged sixteen to eighteen, rather than at the statutory minimum age.

Table 5.29: Clerical class: Readership of weekly periodicals

Periodical	Men	Women	All
	%	%	%
None	75	78	76
Economist	7	2	5
New Statesman	4	6	5
Spectator	5	2	4
New Society	4	2	3
Statist	1	1	1
Listener	10	9	
Times Educational Supplement	3	5	
Times Literary Supplement	6	6	
(N) ¹	(183)	(183)	(366)

¹ Totals add up to over 100 because some staff read more than one periodical.

Although social and educational factors play some part in the choice of newspapers within the clerical class and a greater part than for other Civil Service classes they are still relatively unimportant. The responsibilities and functions of the clerical officer still seem to be the most potent influences: the similarities of personal, social and educational background outweigh the differences that can be found in our survey figures. Moreover, the fact that the newspaper reading of all four of the subordinate classes is very similar and that there exists a fairly clear distinction between them and the six higher and intermediate classes appears to corroborate the view that it is occupational experience and attainment that most influence the choice of regular newspaper reading.

Readership of periodicals among the clerical class is set out in Table 5.29. About three-quarters of its members do not read any of the listed journals and this class therefore fits into the general picture of reduced reading among the subordinate classes. Of the minority who do read one of the journals the *Listener* is the most popular as it is for all the subordinate classes in the Civil Service.

Chapter VI

The Legal Class

THE CLASS

Function

Members of the legal class have the following five main functions:

- (i) the preparation of government bills and, to an increasing extent, the drafting of subordinate legislation, as well as the supervision of Private Members' Bills;
- (ii) the conduct of civil litigation on behalf of a department in an action with a member of the public. Members are responsible for preparing the case and briefing counsel, or appearing themselves for the department. They also undertake conveyancing work on the disposal or acquisition of property by their department.
- (iii) advice to a department on the interpretation and application of the law;
- (iv) advice on the legal implications of questions of major policy;
- (v) the administration of legal services and institutions (law courts, administrative tribunals etc.).

Salary, grades and tenure

The tenure, sex and salary of the five grades in the legal class, and the proportion each constitutes of the class as a whole may be seen from Table 6.1. The Treasury Solicitor and the Permanent Secretary to the Lord Chancellor are equivalent to Permanent Secretaries, but most of the higher directing staff are heads of legal branches of departments (equivalent to deputy secretaries), to whom principal assistant solicitors (under secretary equivalent) normally work. Assistant solicitors, roughly equivalent to assistant secretaries are normally responsible for the supervision and allocation of work between the two grades below them, in addition to dealing with the more difficult and complex day to day work. All but the two women in the three top grades, which form a quarter of the whole legal class, were sent questionnaires and the 172 who replied (97% of the sample) form our upper legal sample group. The lower legal sample group of 179 is drawn from a 2 in 5 sample (response rate 84%) of the senior legal assistant and legal assistant grades. There is no clear difference in responsibility between these two grades and a system of "flexible complementing" operates between them. Over half the legal class are senior legal assistants.

A recent study of lawyers in Great Britain¹ estimated that their average salary is £3,388 (in 1967/8). However, despite the notorious difficulties of comparison between the earnings of different occupational groups, and although there has been no *systematic* study of solicitors' salaries since the mid 1950's,

¹ Brian Abel-Smith and R. Stevens, *Lawyers and the Courts*, pp. 399-400, Heinemann, London, 1967.

Table 6.1: Legal class: Grade by tenure, sex and salary

	Higher Directing Staff	Principal Assistant Solicitor	Assistant Solicitor	Senior Legal Assistant	Legal Assistant	All
	%	%	%	%	%	%
% male ²	100	95	99	94	87	91
% permanent ¹	100	100	99	95	68	90
% of class ¹	3	4	19	51	23	100
Salary ³	£5,950– £8,600	£5,250	£3,650– £4,500	£2,625– £3,500	£1,554 (at 24)– £2,250 (at 35)–£2,431	
(N) ⁴	(22)	(29)	(152)	(404)	(183)	(791)

¹ Calculated from *H.M. Treasury, Introductory Factual Memorandum on the Civil Service*, p. 103.

² These figures were provided by the Central Staff Record and refer to permanent staff only in November, 1966.

³ Calculated from figures on p. 54 of the *Civil Service Estimates 1967/68* (memorandum by the Financial Secretary to the Treasury) H.M.S.O., Cmnd. 3227, London, March 1967.

⁴ Permanent and temporary staff, on 1st April, 1967.

there is evidence that Civil Service lawyers (who include barristers) are not as well paid as solicitors of the same age and with similar responsibilities, working outside the Civil Service.

For example, the higher directing staff who form the top 3% of the class and who are all over fifty, earn between £6,000 and £8,000 a year, a salary lower than that of senior partners in established firms in central London, firms specializing in commercial work in the provincial towns, and even small firms in the middle class suburbs of large cities, all of whom were likely to be earning in the region of £10,000 in 1964. Their income approximates more to that of successful solicitors in the more prosperous provinces who were, for instance, earning £5,000 in Gloucestershire and up to £7,000 in Chester and Exeter in 1964. At the lower end of the scale 23% of the class are earning between £1,554 and £2,431 per annum as legal assistants. Most members of this grade are aged between thirty-three and fifty. Yet the average salary of a solicitor outside the Service, who graduated from Cambridge in 1951 and who was therefore about thirty-three in 1961, was £1,960 in that year. Similarly, senior legal assistants are on about the same salary range as a junior partner in a small London firm or most provincial companies. However, whereas all of the former are at least thirty-five, and many over fifty, most of the latter are under thirty-five.¹ Nine per cent of the legal class are women (Table 6.1). This figure is higher than that for female members of the Law Society with practicing certificates (3.5%), or for women in the Institute of Chartered Accountants (less than 1%) or Chartered Institute of Secretaries (4%).² The women in the legal class are concentrated in the lowest grades, but the number was considered too small to warrant their inclusion in a separate sample group, and thus only men have been sampled.

¹ All the figures for the legal profession can be found in Brian Abel-Smith and R. Stevens, *op. cit.* pp. 399–400.

² Viola Klein, "The demand for professional womanpower". *British Journal of Sociology*, XVIII, 1966, pp. 186–7.

Only 10% of the class are temporaries, and the great majority of these are in the legal assistant grade, of whom only two-thirds are permanent. However, 39% of the upper and 45% of the lower legal sample groups entered the Civil Service initially as temporary recruits. The greater percentage in the two lower grades reflects recruitment and not promotion policy; it is not that initially temporary recruits stay longer in the lower grades, but that more have been appointed in recent years.

Length of service

Over half the upper grades and 89% of the lower grades were first appointed after the war (Table 6.2). Fifty-two per cent of the upper grades were established in the Civil Service during the immediate post war period of 1946-49, and about three-quarters of the lower grades have been established in the 1950's and 1960's. The small margin between year of appointment and establishment indicates a relatively short period of unestablished service for those first appointed in a temporary capacity, in contrast to the situation in some of the intermediate and subordinate classes. Figures from Table 6.2 also show that initially temporary appointments are a predominantly post war pattern.

Method of permanent establishment to the Civil Service

Open competition is the normal method of entry to the legal class (Table 6.3). It accounts for 44% of those in the upper and 79% in the lower grades. Rather more than a third of present members of the upper grades came in through post-war reconstruction competitions and 19% by nomination.¹ Open competition provided three-quarters of those who were established before the war, 80% of those established since the war. Establishment by nomination is almost entirely a pre-war phenomenon which died out during the war and accounts for a negligible proportion of those in the lower grades.

Given this pattern of past recruitment it is not surprising that those who entered through open competition are, on average, younger than those who came in by other routes (Table 6.3). Figures for educational qualifications at entry (Table 6.3) show that recruits through post-war reconstruction competitions or "other" methods are more frequently non-graduates whose highest qualification is membership of a professional institution, e.g. the Law Society. Thus, whilst the post-war reconstruction competitions contributed 18% to the present membership of the class, it, at the same time, makes up 28% of the professionally qualified non-graduates. The temporary infusion of non-graduates into the legal class during and after the war made only a slight impact on the social composition of the class. Articles in a law firm have served as a traditional avenue of social mobility for some sons of the lower middle classes, but have also been a route of entry into the profession for the non-graduate sons of the upper middle class. Thus there is no evidence that the post-war reconstruction competition did anything more than add a relatively higher proportion of members from social class II.

¹ Nomination means permanent establishment by departmental recommendation. A few nominees in the legal class joined during the war, when only temporary appointments were made, and were subsequently nominated for establishment by their department.

Table 6.2: Legal class: Initial tenure on appointment by year of appointment and year of permanent establishment to the Civil Service

Year	Upper grades						Lower grades			
	Initially temporary		Initially permanent		All (whatever initial tenure)		Initially temporary		Initially permanent	
	Appointed	Established	Appointed and established	%	Appointed	Established	Appointed	Established	Appointed and established	All (whatever initial tenure)
1920-29	% 1	% 18	% 43	% 1	% 38	% 1	% —	% 1	% 9	% 6
1930-39	22			33			1			5
1940-45	9	—	—	—	9	—	5	—	—	—
1946-49	55			52			26			20
1950-59	12	82	57	13	53		41	99	91	89
1960-66	1			1			27			36
Total	100	100	100	100	100	100	100	100	100	100
(N)	(67)	(67)	(105)	(172)	(172)	(172)	(81)	(81)	(98)	(179)

Table 6.3: *Legal class: Age and highest educational qualification obtained before entry into the Civil Service, by method of permanent establishment into the Civil Service*

Method of permanent establishment	Upper grades	Lower grades	All ¹	Legal class					
				Age			Highest educational qualification before entry		
				Under 33	33-50	Over 50	University higher degree ^a	University first degree	Membership of a professional institution
	%	%	%	%	%	%	%	%	%
Open competition	44	79	68	72	89	41	72	71	60
Post-war reconstruction competition	34	11	18	—	4	38	11	17	28
Nomination	19	3	8	6	2	16	11	9	4
Other ²	3	6	7	22	5	4	6	4	9
Total	100	100	100	100	100	100	100	100	100
(N)	(172)	(179)	(351)	(18)	(160)	(173)	(117)	(117)	(114)

¹ Includes three members who were neither graduates nor professionally qualified on joining the Civil Service.

² Includes limited and special competitions.

³ The proportion of the sample claiming a higher degree is surprisingly large and far exceeds the figure of 8% reported by the Civil Service Commission for entrants to the legal class during the last five years. The discrepancy arose because of the much wider definition of a "higher degree" used by respondents in the sample survey, which included not only the Cambridge LL.B., London LL.M., and Oxford B.C.L. but also (i) the Scottish LL.B., claimed by graduates where primary degree was not in law, and (ii) the call to the Bar, considered a higher degree by most graduate barristers.

Location

The great majority of the legal class work in inner London (Table 6.4); the remainder are mainly in Scotland.

Those who work in the provinces and in Scotland also form a social and educational minority within the class (Table 6.5). Besides having been born in the provinces, they tend to have less privileged social and educational backgrounds. Three times as many as in the London group come from the working or lower middle classes, and two-thirds were educated in the state sector (and only 6% at boarding schools) as against 18% of those employed in the London departments, over half of whom attended a boarding school.

DEMOGRAPHIC COMPOSITION

Age

The age distribution of the legal class is set out in Table 6.6. Nearly two thirds of the upper grades are aged fifty to sixty and the average age is 54.2. The lower grades are ten years younger on average; a quarter are fifty and over, and the average age is 44.4. Hardly any members of even the lower grades are under thirty. This makes the class one of the oldest of those surveyed, second only to the professional works group.

Table 6.4: *Legal class: Location*

Location	Upper grades	Lower grades	All
	%	%	%
Inner London	91	75	79
Outer London	1	1	1
North	1	1	1
Rest of England and Wales	3	5	4
Scotland	4	18	15
Total	100	100	100
(N) ¹	(179)	(215)	(351)

¹ Figures for the first two columns were supplied by the Central Staff Record and refer to the original samples taken from the legal class; figures in the third column were provided by our social survey and refer to the actual sample-groups. Hence the discrepancy between the numbers in column 3, and total numbers in columns 1 and 2.

Table 6.5: *Legal class: Location by social class origins (father's occupation), and type of full-time school last attended*

Father's occupation	Located in	
	London	Scotland and provinces ¹
	%	%
I and II Higher and intermediate professional and managerial	86	61
III-V Skilled manual and non-manual, semi and unskilled	13	39
Total	100	100
Type of school		
	%	%
Secondary modern, technical or comprehensive	3	19
L.E.A. grammar	15	49
Direct grant and public school or other fee paying	76	28
Schools abroad and other	6	4
Total	100	100
	%	%
Day school	49	94
Boarding school	51	6
Total	100	100
(N)	(292)	(59)

¹ Very largely Scotland

Table 6.6: Legal class: Age

Age	Upper grades	Lower grades	All
	%	%	%
17-20	—	—	—
21-25	—	—	—
26-30	—	2	1
31-35	1	14	7
36-40	1	26	18
41-45	5	14	13
46-50	18	18	18
51-55	35	16	20
56-60	31	7	16
61-65	7	1	5
Over 65	2	1	2
Total	100	100	100
(N)	(172)	(179)	(351)
Average age	54.2	44.4	48.0

Table 6.7: Legal class: Place of birth; and distribution of the British population in 1911 and 1921¹

Region	Upper grades	Lower grades	All	Residence of British population in	
				1911	1921
	%	%	%	%	%
North	1	3	2		
East and West Riding	5	4	5	33	32
North West	8	9	9		
North Midlands	1	3	2		
London and South East	41	30	32	24	24
Rest of Midlands	2	4	4		
East	2	2	2	23	23
Rest of South	8	3	5		
South West	6	6	6		
Wales	5	5	5		
Scotland	10	17	16	20	20
Northern Ireland	—	—	—		
Abroad ²	11	14	12		
Total	100	100	100	100	100
(N)	(172)	(179)	(351)		

¹ Calculated from Tables III and VIII, *Census of England and Wales, 1921, Summary Report*.² 4% of the population resident in Great Britain in 1961 were born abroad (including Eire).

SOCIAL BACKGROUND

Geographical origins

In Table 6.7 we compare the geographical origins of the upper and lower legal class with the residential distribution of the British population for the census

Table 6.8: *Legal class: Proportion whose fathers were Civil Servants*

Whether father a Civil Servant	Upper grades	Lower grades	All
	%	%	%
No	82	88	86
Yes, in social classes I and II	16	10	12
Yes, in social classes III-V	2	2	2
Total	100	100	100
(N)	(172)	(179)	(351)

years nearest to the average year of birth of these two sample groups. In both groups the North and, to a lesser extent, the non-metropolitan South, are under represented, and those born abroad (mainly Commonwealth) are over represented. In the upper grades the proportion born in Scotland, Wales and Northern Ireland is disproportionately low.

The distribution of geographical origins and the disproportion in the upper grades of those born in Scotland, Wales and Northern Ireland can be due either to people preferring employment in their native locality or to the regional variations in educational opportunity. The very high number of "metropolitans" in the upper grades (41%) is attributable to a considerable "local" recruitment during and after the war (i.e. to members employed in their native locality). A higher proportion of "metropolitans" (44%) than of the legal class as a whole (34%) were established via post-war reconstruction competitions. The 10% fall in the proportions in the lower grades who were born in London and the South-East may be due to a lessening of "local" recruitment after the war and the introduction of the open competition as the normal mode of establishment.

The rise in the proportion of recruits born in the regional category of Scotland, Wales and Northern Ireland is probably due to an increase in the number of legal class posts in Scotland. The rise is associated with the post war predominance of entry through open competitions. In both the upper and lower grades the Scottish, Welsh and Irish have tended to be recruited to a greater extent by open competition and to include in their numbers a relatively high proportion of graduates. This is partly because it is more difficult to become a lawyer in Scotland without attending a university.

Social class origins

The proportion of the legal class whose fathers were in the Civil Service is relatively high compared with all the classes surveyed (Table 6.8) although less than in the administrative class, and it declines in the lower grades.

The proportion whose fathers were members of the legal profession (solicitors, barristers, judges etc.) as opposed to the Civil Service, is 9% in the upper grades and 7% in the lower grades, figures lower than those recorded in other studies of self recruitment in the legal profession.¹ For example, the proportion of

¹R. K. Kelsall, "Self recruitment in four professions", in David Glass (ed.), *Social Mobility in Britain*, Routledge and Kegan Paul, London, 1954. This comparison is not statistically significant at the 5% level. The figures for the legal class were specially tabulated by the Government Social Survey.

Table 6.9: *Legal class and population of Great Britain in professional, high administrative, managerial and executive occupations, born in 1910-1929¹: Social class origins (father's occupation)*

Father's occupation	Upper grades	Lower grades	All	Great Britain population in professional, high administrative, managerial and executive occupations born in	
				1910-19	1920-29
	%	%	%	%	%
I Higher professional and managerial	39	36	37	67	67
II Intermediate professional and managerial	44	45	45		
III (i) Skilled non-manual	7	7	7	29	28
III (ii) Skilled manual	8	8	9		
IV Semi and unskilled	1	3	2	4	6
V and Other	1	1	1	—	—
Total	100	100	100	100	100
(N)	(172)	(179)	(351)	(55)	(36)

¹D. V. Glass and J. R. Hall, *loc. cit.*, p. 187.

law graduates at Scottish universities whose fathers were lawyers was 16% before the war and 14% immediately after, and 26% of law students at Cambridge in 1937-38 had fathers in the legal profession.

The legal class contains a higher proportion of staff born into social classes I and II (82%) than any other Civil Service class surveyed, including the administrative class (Table 6.9). Moreover, the same table indicates that the class is socially more exclusive in origins than those in high professional, administrative and executive occupations in the country generally; 67% of the latter who were born between 1910 and 1929 were born into social classes I and II (compared with 82% for the legal class).

The two sample groups are virtually identical in social class background, and there was little evidence that class origins were in any way associated with promotion into the upper grades. As may be seen from Table 6.10 there does appear to be a trend towards recruitment of more staff with working class antecedents: 29% of the small minority under thirty-three were born into social classes III-V compared with the 17% of the class as a whole and 15% of those over fifty.

There are clear differences between the schooling and higher education of those with different class backgrounds in the legal class. Broadly speaking, the higher the social class origins of a member of the class, the more likely it is that he went to a school in the private sector and to a university. For example, 63% of those whose fathers were skilled manual workers attended an L.E.A. school compared with 15% of those born into social class I. The respective

Table 6.10: Legal class: Age by social class origins (father's occupation)

Father's occupation	Under 33	33-50	Over 50	All
I and II Higher and intermediate professional and managerial	%	%	%	%
III-V Skilled manual and non-manual; semi and unskilled	72	81	83	82
Other	29	19	15	17
Total	100	100	100	100
(N)	(18)	(160)	(212)	(351)

proportions who went to university are 33 % and 41 %. However, these variations in the educational background of those with different social origins are, in certain ways, more remarkable for their narrowness and exceptions, and are less marked than they are in the administrative class. On the one hand it is true that 88 % of those in the upper grades born into social class I, attended public and other fee paying schools compared with 23 % of those whose fathers were skilled manual workers. But on the other hand the latter proportion is extremely high compared with both the national population and the sons of skilled manual workers generally. The professional requirements for entry into the legal class preclude a high working class entry but those members who have working class origins tend to be nearer in educational background to their middle class colleagues than is the case in the administrative class. This is because their educational background clearly differs from that of members of the administrative class with working class origins. For example, 46 % of those in the legal class whose fathers were skilled non-manual workers attended public and other fee paying schools compared with 17 % of those with the same social class origins in the administrative class. This difference between the two classes may be due to the relatively large minority of Scottish members in the legal class, a comparatively high proportion of whom come from the working classes. The Scottish educational system is less socially discriminatory. But it probably also results from the fact that there is some recruitment into the administrative class from subordinate classes and that it is possible to enter with lower formal educational qualifications. This point is reinforced if it is noticed that all but one of the 32 members of working class origin in the lower grades were appointed by open competition and not by nomination or post-war reconstruction (which would have permitted entry to the Civil Service with a lower level of educational qualification and the chance of promotion into the legal class on obtaining the necessary professional qualifications).

There is one important difference between the upper and the lower grades. In the lower grades, those of working class origin form a relatively high proportion of the non-graduates. (40 % of those whose fathers were skilled manual workers, 58 % of those whose fathers were skilled non-manual and 60 % of those whose fathers were semi-skilled or unskilled were non-graduates by comparison with 33 % of the group as a whole.) In the upper grades on the other hand the pattern is rather different. Here the proportion who are non-graduates is as high among those whose fathers were in social class I as anywhere, but it is noticeable that among the working class graduates in the upper classes, a relatively high proportion took *part-time* university courses.

Table 6.11: *Legal class: Social class origins (father's occupation) by type of full-time school last attended and institution of higher education*

Type of school	Upper grades						Lower grades						All					
	I	II	III(i)	III(ii)	IV and V	All ¹	I	II	III(i)	III(ii)	IV and V	All ¹	I	II	III(i)	III(ii)	IV and V	All
Secondary modern, technical, and comprehensive L.E.A. grammar Direct grant Public school and other fee paying Schools abroad and other Total	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
	—	4	8	15	50	4	2	4	8	27	20	6	1	4	11	24	24	6
	7	20	33	46	50	18	14	27	8	33	60	23	14	24	15	39	59	22
	1	12	8	8	—	8	8	14	25	20	—	12	6	13	19	15	—	11
	88	61	42	23	—	66	70	49	50	13	—	53	74	53	46	15	—	56
Total	4	4	8	8	—	4	6	6	8	7	20	7	5	6	8	6	17	6
	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Day school	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Boarding school	30	42	75	92	100	51	42	67	75	93	80	61	40	63	75	93	83	58
Total	70	58	25	8	—	49	58	33	25	7	20	39	60	37	25	7	17	42
	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Institution of higher education																		
University full-time	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
University part-time and other institutions full or part-time	58	63	58	38	—	59	64	60	25	60	40	59	62	62	37	53	34	59
None	3	9	17	23	100	9	6	10	17	—	—	8	5	9	16	6	15	8
Total	39	28	25	39	—	32	30	30	58	40	60	33	33	29	47	41	51	33
	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(67)	(76)	(12)	(13)	(2)	(172)	(64)	(81)	(12)	(15)	(5)	(179)	(131)	(157)	(24)	(28)	(7)	(351)

¹ Includes a few staff whose father's occupation was unknown.

Table 6.12: *Legal class: Age by highest educational qualification obtained before entry into the Civil Service*

Highest qualification before entry	Upper grades			Lower grades				All			
	All	33-50	Over 50	All	Under 33	33-50	Over 50	All	Under 33	33-50	Over 50
	%	%	%	%	%	%	%	%	%	%	%
University higher degree ¹	32	37	30	35	39	36	30	33	39	37	28
University first degree	35	26	39	31	28	32	32	33	28	31	37
Membership of a professional institution	30	30	29	29	33	25	39	29	33	25	34
Other ²	3	7	2	5	—	7	—	5	—	8	1
Total	100	100	100	100	100	100	100	100	100	100	100
(N)	(172)	(43)	(129)	(179)	(18)	(117)	(44)	(351)	(18)	(160)	(173)

¹ See the footnote to Table 6.3.

² Mainly H.N.C., H.S.C. and "O" levels. Nearly all in this small group obtained professional legal qualifications after joining the Civil Service in another class.

EDUCATIONAL BACKGROUND AND QUALIFICATIONS

Educational qualifications before entry

The highest qualifications obtained by members of the legal class (divided by grade and by age) before entering the Civil Service are set out in Table 6.12. Almost all are graduates or at least members of professional institutions (e.g. Law Society) and one-third took a higher degree (as defined in footnote 3 to Table 6.3). Both the upper and the lower legal class have a higher proportion of men with postgraduate qualifications than any other sample group except the upper grades of the scientific officer class.

In both sample groups larger proportions of younger members hold higher degrees. It may also be noted that non-graduates form the highest proportion (39%) of the relatively unsuccessful—the over fifty age group in the lower grades.

There are no important differences either between pre and post-war recruits or between those who entered initially as permanent or temporary staff. Nor are different educational qualifications at entry associated systematically with school background or social class origins. The relative distribution of type of school among those who took different educational routes of entry into the legal class is almost identical (no table). There is no evidence for example, that the non-graduates come proportionally more either from state schools or from a working class background. Similarly, although a marginally greater than average proportion of those with higher degrees in the lower grades come from social class I families, and from boarding schools, in the upper grades they are disproportionately from social class II and day schools.

School attended

Of all the classes sampled the legal class has the highest proportion who have attended fee paying or direct grant schools (67%). The details are set out in Table 6.13. The schooling of the legal class moreover, is unrepresentative of lawyers in general, being disproportionately in the private sector. In the lower grades the proportion of men who attended grammar or direct grant schools increases slightly at the expense of the public and other fee paying schools:

Table 6.13: *Legal class and lawyers in Great Britain¹: Type of full-time school last attended, and legal class: Age by type of full-time school last attended*

Type of school	Upper grades	Lower grades	All	Great Britain lawyers 1963 ¹	Legal class		
					Under 33	33-50	Over 50
	%	%	%	%	%	%	%
Secondary modern, technical and comprehensive	4	6	6	} 37	—	3	10
L.E.A. grammar	18	23	22		28	24	19
Direct grant	8	12	11		22	12	7
Public school and other fee paying	66	53	56	49	39	55	60
Schools abroad and other	4	7	6	X	11	7	4
Total	100	100	100	100	100	100	100
	%	%	%	%	%	%	%
Day school	51	61	58	X	67	64	50
Boarding school	49	39	42	X	33	36	50
Total	100	100	100	X	100	100	100
(N)	(172)	(179)	(351)	(214)	(18)	(160)	(173)

¹ Report of the Committee on Higher Education (Robbins Report), Appendix Two (B), p. 378, H.M.S.O., Cmnd. 2154 II-I, London, October 1963.

Table 6.14: *Legal class: Type of full-time school last attended by place of birth*

Place of birth	Secondary modern, technical and comprehensive	L.E.A. grammar	Direct grant	Public and other fee paying	Day school	Boarding school	All ¹
	%	%	%	%	%	%	%
North	10	20	25	19	18	19	18
London and the South East	17	19	24	42	29	36	32
Rest of the South and Midlands	6	14	26	17	14	21	17
Wales, Scotland and N. Ireland	57	41	16	10	28	10	21
Abroad	10	6	8	11	11	14	12
Total	100	100	100	100	100	100	100
(N)	(17)	(72)	(35)	(208)	(155)	(196)	(351)

¹ Includes staff who attended "other" schools and schools abroad, of whom there were too few for separate analysis.

this pattern is similar to that of the lower grades of the other higher Civil Service classes. Moreover, there is a similar distinction between older and younger staff. The relation between the type of school members attended and their place of birth is shown in Table 6.14. It indicates a disproportionate number of Scottish, Welsh and Irish born among those educated in the state sector, and of Londoners and Southerners among those with a privileged school background.

Table 6.15: *Graduates in the legal class and undergraduates 1938/9 and 1963/4²: University attended*

University	Legal class		Undergraduates ²		
	Upper grades	Lower grades	All	1938/9	1963/4
	%	%	%	%	%
Oxford and Cambridge	68	42	50	22	14
London	7	16	13	26	19
Welsh and English provincial	6	10	10	32	50
Scottish	5	22	17	20	17
Ireland and foreign	1	7	5		
Other ¹	14	10	11		
Total	100	*	*	100	100
(N)	(116)	(116)	(232)	X	X

* Totals add up to over 100 because a few members studied at more than one university for their 1st university first degree.

¹ i.e. institutions of higher education other than university, full or part-time.

² *Report of the Committee on Higher Education (Robbins Report)*, Appendix Two (A), p. 18.

HIGHER EDUCATION

University

As we have seen, some two-thirds of the legal class are graduates and the distribution of these by university attended is set out in Table 6.15, including a comparison with the university distribution of all male undergraduates in the United Kingdom in 1961/2. Half of the graduates in the legal class and two-thirds of those in the upper grades went to either Oxford or Cambridge. We have also seen that the administrative class has a higher proportionate recruitment from Oxford and Cambridge than any other class, but if non-graduates are excluded then the heaviest proportionate contribution by Oxford and Cambridge, and especially Oxford, is to the legal class. Looking at other single universities, only London provides more than a negligible proportion of the graduates entering the legal class; all the other Welsh and English provincial universities together provide only 10%—though the Scottish Universities provide 17%. In the lower grades, however, recruitment from Oxford and Cambridge is less than for the class as a whole; and recruitment from every other university group, especially the Scottish universities, is higher.

The question arises as to whether this difference in the pattern of recruitment from universities between the lower and upper grades of the legal class has been caused by changes in recruitment or by different rates of career success. It will be seen from Table 6.16 that, as in the other Civil Service classes which employ graduates, those who have been educated at either Oxford or Cambridge are likely to reach the upper grades more frequently and more quickly than graduates from London, the Welsh or the English provincial universities. This is true for both post-war and pre-war recruits. Eighty-nine per cent of Oxford and Cambridge graduates who were appointed to the legal class before or during the war are now in the upper grades, compared with 78% of those who came from

Table 6.16: Graduates in the legal class: Grade distribution according to year of permanent establishment to the Civil Service and to university attended

Present grade	Established before 1940 or appointed 1940-45		
	Graduated at		
	Oxford and Cambridge	London, Welsh and English provincial universities	Other
	%	%	%
Upper grades	89	78	63
Lower grades	11	22	37
Total	100	100	100
(N)	(36)	(9)	(16)
Present grade	Established after 1945		
	%	%	%
Upper grades	51	22	25
Lower grades	49	78	75
Total	100	100	100
(N)	(92)	(36)	(52)

London, the English provincial and Welsh universities: and similarly, among those who came in since the war, half the Oxford and Cambridge graduates are already in the upper grades compared with a quarter or less of the other graduates. To have studied at Oxford or Cambridge is not only associated with membership of the legal class but also with a successful career within it.

In Table 6.17 the graduate membership of the legal class is related to its social and geographical origins. We know that students at Oxford and Cambridge are socially "superior" to those at Scottish and other universities. This pattern also obtains for the legal class and in this sense their distinctively middle class background is attributable mainly to heavy recruitment from Oxford and Cambridge. But it should also be noticed that the graduates from the Welsh and the provincial universities are disproportionately of middle class background—91% compared with 83% in the legal class as a whole. Thus not only are graduates from the Welsh and provincial universities a very small minority of the legal class graduates but also, by contrast with the other graduate Civil Service classes, these universities do not constitute a route of entry into the senior ranks of the Civil Service for those with working class antecedents. This point is further emphasised if it is remembered that sons of manual workers made up 38% of the students attending the Welsh and provincial universities in 1955 compared with 6% of those from these universities with a working class background now in the legal class.¹

¹ *Report of the Committee on Higher Education (Robbins Report)*, Appendix Two (B), p. 429.

Table 6.17: *Legal class: University attended by social class origins (father's occupation) and place of birth*

Father's occupation	Graduates at					
	Oxford and Cambridge	London	Welsh and English provincial universities	Scottish	Other	All
	%	%	%	%	%	%
I Higher professional and managerial	44	20	30	38	28	36
II Intermediate professional and managerial	46	57	61	33	44	47
III (i) Skilled non-manual	3	7	3	8	12	6
III (ii) Skilled manual	4	9	6	17	8	8
IV Semi and	—	5	—	3	8	2
V unskilled	—	2	—	—	—	2
Other	3	—	—	—	—	—
Total	100	100	100	100	100	100
Place of birth						
	%	%	%	%	%	%
North	17	21	42	—	12	17
London and South East	39	27	12	3	26	28
Rest of South and Midlands	25	11	12	—	11	17
Wales, Scotland and N. Ireland	9	9	26	71	22	23
Abroad	10	31	9	26	29	15
Total	100	100	100	100	100	100
(N)	(128)	(26)	(19)	(31)	(37)	(232)

It may also be seen from Table 6.17 that there is a certain amount of regional recruitment to the universities. Thus in the legal class the Oxford and Cambridge graduates tend to come from London and the South and graduate recruits from the other universities from the provinces, the North, Scotland and Wales. For example, nearly three-quarters of the recruits from the Scottish universities were born in Scotland, Wales or Northern Ireland compared with a quarter of the legal class graduates as a whole. Perhaps as a reflection of the university pattern of recruitment to the class a disproportionate number of members of the legal class were born in the South and in London.

The type of school attended by graduates in the legal class coming from different universities is shown in Table 6.18. Those from Oxford and Cambridge are more likely to have attended public and other fee paying schools than either their colleagues in the legal class as a whole or recent students at Oxford and Cambridge: 78 % of them went to a public or other fee paying school compared with 55 % of the legal class and 56 % of all Oxford and Cambridge undergraduates (in 1961/2).¹ Moreover, a similar pattern of selection by school background

¹ A similar contrast occurs if only Oxford and Cambridge graduates in the lower grades of the legal class are taken for comparison.

Table 6.18: Graduates in the legal class and male undergraduates 1961/2¹: University attended by type of full-time school last attended

Type of school	Legal class					Male undergraduates 1961/2 ¹				
	Oxford and Cambridge	London	Welsh and English provincial	Scottish	Other graduates	All	Oxford and Cambridge	London	Welsh and English provincial	Scottish
	%	%	%	%	%	%	%	%	%	%
Secondary modern, technical and comprehensive	1	5	5	10	2	4	28	58	75	66
L.E.A. grammar	11	32	44	41	19	24	15	10	13	19
Direct grant	6	18	27	3	16	11	56	32	12	15
Public school and other fee paying	78	39	24	22	39	55	X	X	X	X
Schools abroad and other	4	7	—	22	25	7	100	100	100	100
Total	100	100	100	100	100	100				
Day school	%	%	%	%	%	%	X	X	X	X
Boarding school	37	70	79	81	63	57	X	X	X	X
Total	63	30	21	19	37	43	X	X	X	X
Total	100	100	100	100	100	100				
(N)	(128)	(26)	(19)	(31)	(37)	(232)	(532)	(441)	(1,219)	(444)
										(2,636)

¹ Report of the Committee on Higher Education (Robbins Report), Appendix Two (B), p. 9.

Table 6.19: Graduates in the legal class: Main subject(s) studied for both 1st and 2nd university first degrees

Subject	Members of the legal class who took one university first degree ¹		Members of the legal class who took two university first degrees	
	Upper grades	Lower grades	All grades	
			Subject of 1st university first degree	Subject of 2nd university first degree
	%	%	%	%
Law	74	86	37	93
Economics	4	8	10	
Politics	3	5	—	
Other social sciences	—	9	7	3
Total social sciences	81	108	54	96
Classics	14	12	23	
History	13	14	30	
Philosophy	9	9	7	
English	1	8	13	
Other languages	4	—	13	
Other arts/humanities	—	5	3	3
Total arts/humanities	41	48	89	3
Natural and applied sciences	6	8	10	3
(N) ¹	(116)	(116)	(30)	(30)

¹ Totals add up to over 100 because the studies of some members were equally divided over more than one subject.

seems to have operated among those recruited from London, the provincial and Scottish universities and the Welsh colleges. For example, 41% of those recruited from the English provincial or the Welsh universities had attended a public or direct grant school compared with 23% of all the male graduates from these universities in 1961/2. Again, therefore it is not only because of the heavy recruitment from Oxford and Cambridge into the legal class that there is within it such a high proportion of members who have attended fee paying and boarding schools.

Subjects studied at university

The main subjects studied by graduate members of the legal class for their university first degrees are set out in Table 6.19, including those first degrees which were taken at a second university (accounting for 9% of the legal class as a whole). Three quarters of the upper grades and 86% of the lower grades took a first degree in law. The minority who did not study law for their 1st university first degree were predominantly arts graduates, in classics, history, or philosophy. Of the thirty legal class graduates who took two first degrees the great majority studied law in their second course.

Class of degree

The quality of first degrees obtained is shown in Table 6.20. The median graduate in the upper grades obtained an undivided second; the median lower

Table 6.20: *Graduates in the legal class: Class of 1st University first degree*

Class of degree	Legal class			Students graduating in law in 1962 ¹
	Upper grades	Lower grades	All	
	%	%	%	%
First	17	7	10	3
Upper second	14	8	9	55
Undivided second	32	21	24	
Lower second	9	21	17	
Other	28	44	39	42
Total	100	100	100	100
(N)	(116)	(116)	(232)	(1,120)

¹ *Report of the Committee on Higher Education (Robbins Report)*, Appendix Two (A), p. 146.

grade graduate, a lower second. There is a marked difference in standard of degree between the two sample groups, with just under two-thirds of the lower graduates having obtained a lower second or below while just under two-thirds of the upper grades obtained an undivided second or above. Differences in the standard of degree between upper and lower grades is a general pattern in the classes we have surveyed, but is particularly marked in the legal class, although the class recruits an unrepresentative share of firsts from the national body of law students. How far is the difference between the grades explained by recruitment trends and how far by internal promotion?

In order to explore this question we divided the legal class graduates according to whether they were established before 1940 or appointed during the war, or established after the war, and then further sub-divided them into two groups according to degree classification (Table 6.21). It turns out for both recruitment groups that the better the class of degree the better the chances of quick promotion into the upper grades. Thus different rates of career success for graduates with different classes of degree seems to be the main reason for the clear difference in degree standards between the upper and lower grades. There is no evidence that in recent years, or among younger members of the legal class, degree standards have fallen. Indeed, in both sample groups those with "other" degrees (thirds, fourths and pass degrees) are older than average and those with upper seconds are younger. There is no *prima facie* evidence, as there is in the case of the administrative class, that the legal class has accepted lower degree standards among its recent recruits.

There is a consistent association between class of degree and university of origin among graduate members of the legal class (Table 6.22). The great majority of men with firsts came from Oxford and Cambridge.

OCCUPATIONAL EXPERIENCE

Previous field of employment

Until very recently practical experience in the legal profession has been an essential qualification for entry into the class. As a result, of all the Civil Service classes the legal class has the second highest proportion of staff with some

Table 6.21: *Graduates in the legal class: Grade distribution according to year of permanent establishment in the Civil Service, and class of 1st university first degree*

Present grade	Establishment before 1940 and appointed 1940-45			
	Graduates with a			All
	First or upper second	Undivided second	Lower second or below	
	%	%	%	%
Upper grades	94	86	66	82
Lower grades	6	14	34	18
Total	100	100	100	100
(N)	(16)	(22)	(22)	(60)
Present grade	Established after 1945			
	%	%	%	%
Upper grades	56	46	29	39
Lower grades	44	54	71	61
Total	100	100	100	100
(N)	(37)	(39)	(96)	(172)

Table 6.22: *Graduates in the legal class: Class of 1st university first degree by university attended*

University attended	First	Upper second	Undivided second	Lower second	Other	All
	%	%	%	%	%	%
Oxford and Cambridge	85	42	74	37	33	50
London	6	9	6	39	8	13
Welsh and English provincial	5	27	8	7	9	10
Scottish	2	13	8	—	34 ²	17
Ireland and foreign, and other	4	22	11	17	20	16
(N) ¹	(28)	(25)	(61)	(35)	(83)	(232)

¹ Totals add up to over 100 because some members attended more than one university for their 1st university first degree.

² This high figure is because until a few years ago all Scottish law degrees were ordinary degrees.

occupational experience outside the Civil Service. Only 16% of the upper grades and 10% of the lower grades have pursued their career entirely within the Civil Service. The majority of those who have worked outside the Civil Service fall into the category labelled "other" which refers mainly to the serving of articles and the holding of partnerships in private practice (Table 6.23). In the lower grades there is a rather larger minority with a background in industry, commerce and local government.

Table 6.23: Legal class: Field of employment before joining the Civil Service

Field of employment	Upper grades	Lower grades	All
	%	%	%
None	16	10	12
Industry	3	8	6
Commerce	4	9	7
Education	7	7	7
Local government	5	10	8
Armed forces and local uniformed services	2	8	6
"Other" ¹	76	73	74
(N) ²	(172)	(179)	(351)

¹ Largely articles and partnerships in law firms (all but 2%).

² Totals add up to over 100 because some respondents were previously employed in more than one field.

Table 6.24: Legal class: Field of employment before joining the Civil Service by age and year of establishment to the Civil Service

Age	Previously employed in						
	None	Industry or commerce	Education	Local government	Armed forces and local uniformed services	Other	All
	%	%	%	%	%	%	%
Under 33	—	9	11	10	6	8	7
33–50	56	66	54	45	45	51	52
Over 50	44	25	35	46	49	42	41
Total	100	100	100	100	100	100	100
Year of establishment							
	%	%	%	%	%	%	%
Before 1940	33	3	13	7	6	14	15
(Appointed) 1940–45	6	6	6	4	15	5	6
1946 and after	61	91	81	89	79	81	79
Total	100	100	100	100	100	100	100
(N)	(45)	(46)	(25)	(27)	(18)	(261)	(351)

It appears from Table 6.24 that recruitment into the legal class from lawyers holding posts outside the Civil Service is something of a post-war phenomenon. In both the upper and lower grades those whose experience is confined to the Civil Service contain the highest proportions established before 1940 (33% compared with 15% of the class). On the other hand very few of the staff with industrial or teaching experience were established before 1940.

These differences are reduced in the age comparisons because "outsiders" are appointed at a later age than those whose entire careers have been followed inside the legal class of the Civil Service.

Occupational experience in industry and commerce (and for the lower grades in local government) tends to be associated with a relatively early school leaving age (no table): 25 % of those in the upper grades with some experience of other occupations left school at 16 or earlier compared with 4 % of those whose careers have been exclusively within the Civil Service. The comparable figures for the lower grades are 29 % and 11 %.

The figures in Table 6.25 suggest that in the distribution of legal staff between types of department there is a correlation between their previous employment and the department's main sphere of action. For example in the upper grades 42 % of those with industrial or commercial experience are in the economic departments (compared with 27 % of the whole group) and 56 % of those who have worked in local government are in the Civil Service departments connected with social welfare (as against 17 % of the whole group). In the lower grades these correspondences are less marked.

Educational qualification after entry

Compared with other Civil Service classes the legal class has the smallest proportion of staff (15 %) who have gained qualifications since entry (Table 6.26). This is presumably a consequence of the late minimum age of entry (twenty-four), and because practical experience of the law is a pre-requisite for entry.

PROFESSIONAL AND LEISURE ACTIVITY

Membership of voluntary associations

The details of membership of outside organisations for the legal class are set out in Table 6.27. In both sample groups over 70 % nominally belong to both social and leisure clubs and to work-oriented organisations. Membership of professional and staff associations is evenly divided. One-fifth belong to Church-connected organisations and to civic bodies such as parent-teacher or community associations, and up to half have joined "other" outside bodies connected with welfare, and education and training. In nominal membership there appears to be very little difference between the upper and lower grades although slightly more of the former belong to work-connected associations and slightly less to "other" organisations. As for every other Civil Service class surveyed, members of the legal class belong far more to voluntary associations than adults in the general population.

Both sample groups report twice as much active membership of social, leisure and Church sponsored organisations as of associations connected with their work. This implies that a substantial proportion of the membership of staff associations or professional institutes is only passive, as the fall from nominal to active membership is greater for the latter. Again, in the total amount of active participation in different kinds of association there is little difference between the two sample groups but there are some differences in the distribution of the total over the different types of outside activity. The lower grades are more active in social and Church sponsored organisations (34 % compared with 25 % of the upper grades), slightly more active in work-connected organisations, particularly the staff associations, but participate less in the running of other voluntary associations.

Table 6.25: *Legal class: Field of employment before joining the Civil Service by departmental distribution³*

Type of department ¹	Upper grades						Lower grades					
	Previously employed in						Previously employed in					
	None	Industry and commerce	Education	Local government	Other	All	None	Industry and commerce	Education	Local government	Other	All
Economic ⁴	% 30	% 42	% 33	% —	% 26	% 27	% 28	% 29	% 38	% 11	% 24	% 24
Social ⁵	19	17	8	56	14	16	17	7	23	17	10	12
Other ²	52	42	58	44	60	58	56	64	38	72	66	64
Total	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(27)	(12)	(12)	(9)	(130)	(172)	(18)	(28)	(13)	(18)	(131)	(179)

¹ There are no members of the legal class in any of the technical departments.

² Mainly the Treasury Solicitors Dept., the Land Registry, and Procurator Fiscal's Department.

³ Previous posts in the armed forces and local uniformed services have been excluded from analysis for lack of numbers.

⁴ Mainly the Board of Trade.

⁵ Mainly the Ministry of Housing and Local Government.

Table 6.26: Legal class: Highest educational qualification obtained after entry into the Civil Service

Highest qualification after entry	Upper grades	Lower grades	All
	%	%	%
None	86	85	86
University higher or first degree	5	5	5
Membership of a professional institution	2	3	3
Other ¹	6	6	6
Total	100	100	100
(N)	(172)	(179)	(351)

¹ Includes, H.N.C., H.S.C., "O" level(s), R.S.A. examinations, O.N.C., City and Guilds certificates, etc.

Table 6.27: Legal class and local government electors in Great Britain¹: Nominal and active membership of organisations and voluntary associations

Type of organisation	Legal class						Local government electors ¹
	Upper grades		Lower grades		All		Nominal members
	Nominal members	Active members	Nominal members	Active members	Nominal members	Active members	
None	%	%	%	%	%	%	%
Professional bodies	5	60	4	53	4	56	X
connected with work	54 } 71	5	53 } 80	1	53 ³ } 77	2	} 27
Other associations connected with work	51 }	10	56 }	16	54 }	14	
Clubs and societies connected with social and leisure activities	75	17	71	23	73	21	17
Religious and Church-connected associations	21	12	26	16	24	14	10
Civic groups	20	5	21	4	20	4	7
Associations connected with education and training	12	6	11	5	12	6	5
Public bodies and committees	8	5	2	1	4	3	1
Other associations connected with welfare	9	5	7	4	8	5	3
Any other associations, societies etc.	20	5	21	4	20	4	X
(N) ²	(172)	(172)	(179)	(179)	(351)	(351)	(X)

¹ M. Horton, *op. cit.*

² Totals add up to over 100 because many members were nominal or active members of more than one type of organisation.

³ This figure is based on reported membership and would appear to be a serious underestimate of actual nominal membership of professional bodies for solicitors and barristers such as the Law Society or an Inn of Court. It is possible that barristers did not consider an Inn of Court (or in Scotland, the Faculty of Advocates) to be a "professional body connected with work".

Well over half of the class play no active part in any organisation. This means that the minority of activists are involved in more than one kind of outside organisation. Indeed, if nominal is distributed against active membership it does not turn out that those who are active in one type of outside organisation

Table 6.28: *Legal class: Active membership of organisations and voluntary associations by location:*

Type of organisation	Upper grades		Lower grades		All	
	Location		Location		Location	
	Inner London	Other ²	Inner London	Other ²	Inner London	Other ²
None	61 %	54 %	60 %	31 %	61 %	38 %
Professional bodies connected with work	5 } 12	— } 18	2 } 14	— } 26	3 } 13	— } 23
Other associations connected with work	9	18	12	26	11	23
Clubs and societies connected with social activities and the Church	25	23	28	52	27	43
All other associations, etc.	22	27	13	26	15	26
(N) ¹	(150)	(22)	(137)	(42)	(287)	(64)

¹ Totals add up to over 100 because some members are active participants in more than one type of organization.

² Very largely Edinburgh.

are less than proportionately nominal members of other types of organisation. On the contrary, the correlation is positive. Unfortunately, we do not have figures to show whether active members of one kind of association are also more than proportionately *active*, for the class as a whole, in other kinds of organisation. But from the evidence available it seems that some members are naturally club men or committee men, and others are not. For example, in the upper grades, of the 13% who actively run a work-connected organisation, 82% are also nominal members of associations catering for social and leisure pursuits, compared with 75% of the sample group as a whole.

With the exception noted below, no particular section of the legal class characterised by age, length of service or any social or educational factor, can be distinctively associated with active or nominal membership of any kind of organisation. The one exception is that active interest in Church and religious organisations tends to be associated with greater age. However, a geographical factor seems to make a difference to the total amount of active participation in voluntary associations. It is noticeable in Table 6.28 that those who worked in the provinces are the more active participants in outside organisations (62% compared with 39% of those working in inner London).

Readership of the daily and weekly press

In both upper and lower grades the most popular newspaper is the *Times*—a taste which the legal class shares with the administrative class—although the upper grades have far more readers (80% against 59% in the lower grades). But unlike the administrative class the legal class has a very small proportion who read the *Guardian* (14% in the upper grades and 9% in the lower grades). Full details are set out in Table 6.29.

In both sample groups 35% read the *Daily Telegraph* and one at least of the middlebrow papers—the *Daily Express*, *Sun* or *Daily Mail*. There is little difference between the two sample groups except that a smaller proportion of the lower grades read the serious newspapers. Similarly, slightly larger proportions of the upper grades read serious Sunday newspapers—the *Sunday Times* and

Table 6.29: Legal class and national population in higher and intermediate managerial, administrative and professional occupations with a terminal education age of 19 or more¹: Readership of daily and Sunday newspapers

Daily newspaper	Legal class			National population in higher and intermediate managerial, administrative and professional occupations, with a T.E.A. of 19 or over (1963/64) ¹
	Upper grades	Lower grades	All	
	%	%	%	%
Times	80	59	64	22
Guardian	14 } 83	9 } 62	10 } 67	18
Daily Telegraph	40	35	36	41
Daily Express	20	18	} 36	27
Daily Mail	18	18		19
Sun ²	1	1		2
Daily Mirror	2	5	} 5	5
Daily Sketch	1	1		2
None	2	3	3	X
Sunday newspapers				
	%	%	%	%
Sunday Times	56	48	51	46
Observer	41	30	33	29
Sunday Telegraph	20	16	17	21
Sunday Express	44	45	45	44
News of the World	2	4	} 6	7
Sunday Mirror	1	2		4
Sunday Citizen	1	1		1
People	1	1	} 8	7
None	5	9		X
(N) ³	(172)	(179)	(351)	(392)

¹ M. Abrams, *Education, social class and reading of newspapers and magazines*, pp. 12, 17.

² The *Daily Herald* in the comparative sample. Little change in the readership of the *Sun* is likely.

³ Totals add up to over 100 because many members read more than one newspaper.

the *Observer*. The former is more popular than the latter but the gap between the two is narrower than between the *Times* and *Guardian*. A higher proportion reads the *Sunday Express* than the *Observer*. As with the daily newspapers there is not much difference between the grades except for the drop in the proportion among the lower grades who read the serious Sunday newspapers (Table 6.29). Members of the legal class as a whole show a slight preference for the more serious newspapers compared with the national population of similar social class and educational background; but the difference is smaller than for the administrative class.

Present rather than past occupational interests and social status seem to determine the choice of newspaper reading. Readership of periodicals is treated in Table 6.30. Half of the upper grades and two-thirds of the lower grades do not read any of the periodicals listed in the questionnaire—a surprisingly high figure when compared with the administrative class. On the other hand it should be

Table 6.30: *Legal class: Readership of weekly periodicals*

Periodical	Upper grades	Lower grades	All
	%	%	%
None	53	66	62
Economist	26	13	16
New Statesman	17	12	13
Spectator	14	9	11
New Society	9	6	7
Statist	3	2	2
Listener	10	4	} 12
Times Educational Supplement	4	2	
Times Literary Supplement	6	11	
(N)	(172)	(179)	(351)

remembered that we do not know how many of the class read a professional journal. Those that do read the listed periodicals read about three each in the upper grades and two each in the lower grades. Current affairs journals such as the *Economist*, the *New Statesman*, *New Society*, *Spectator* or the *Statist*, are read by 40% of the upper grades and 28% of the lower grades. Of the individual journals the *Economist* is the most popular, followed by the *New Statesman* in both grades. As in the case of daily newspapers and as for other Civil Service classes the lower grades have a smaller proportion of journal reading, the drop apparently being evenly distributed over the periodicals in our list.

Non-graduates are the less likely to read one of the weekly journals. Over 40% of the graduate members claimed to read a weekly periodical on the list, compared with 32% of the non-graduates.

It appears that there is a political connection between choice of daily or Sunday newspaper and of periodicals. In the upper grades of the *New Statesman* readers 40% also read the *Guardian* and 83% the *Observer*, whereas the comparable figures for *Spectator* readers are 21% and 63%. Again 38% of *Spectator* readers in the lower grades took the *Daily Telegraph* compared with 14% of the *New Statesman* readers in this grade. The figures, although suggestive are, however, not statistically significant.

Chapter VII

The Works Group of Professional Classes: Architects & Surveyors and Engineers

THE CLASS

Function

In this chapter we report on a sample taken from what is officially called the works group of professional classes, departmental variants and related classes. But only the works group proper is included (often referred to as the "professional works group"); we have excluded the departmental variants and related classes. The works group proper includes a wide variety of professions which deal with buildings, land and engineering works of all kinds. Thus it consists of architects, maintenance surveyors, quantity surveyors, mechanical and electrical engineers etc. However, the members of the various professions within the works group are all organised into one common or unified grading structure and pay scale.

The works group covers not only a wide variety of professions but the nature of the work they do varies widely between departments. The main principle, however, is that these professional staffs should be employed only on work which calls for professional knowledge and experience and that all other work should devolve upon supporting classes, particularly the technical and drawing office classes. Thus members perform the same kind of work as members of the same professions in private practice, in industry and in local authorities. Their duties include:

- (a) being directly responsible for the design, planning, erection and maintenance of building and engineering work;
- (b) acting as consultants vetting schemes prepared by other bodies such as local authorities. For example, engineers in the Ministry of Transport might vet the road building schemes submitted to the ministry for approval;
- (c) the supervision of production contracts with private industry;
- (d) being directly responsible for the design and manufacture of equipment for the Forces;
- (e) carrying out statutory inspection functions—for example of road and railway bridges, and of public service vehicles;
- (f) acting in an advisory or executive capacity in the purchase, sale, lease and management of real property, urban or rural.

Some members of the class (particularly engineers) work on research projects in teams which include staff from the scientific officer and experimental officer classes; it is quite usual for members of certain grades within these three classes to be regarded as interchangeable for the purpose of allocating jobs, despite marked differences in career prospects.¹

¹ *Report of the Management Consultancy Group*, p. 45.

Grades and salary

Within the works group we have distinguished two main sectors. The first is that of architects, maintenance surveyors, estate surveyors and land officers—called in this chapter “architects and surveyors”. The second is that of civil, mechanical, electrical and sanitary engineers, referred to simply as “engineers”. We divided each of these sectors into two sample groups—one covering the upper grades and the other the lower grades—and therefore making four sample groups altogether.

Thus we have one sample group of architects and surveyors in the upper grades, and another covering engineers in the upper grades. These two sample groups cover all the permanent male members in the three upper grades in the class (i.e. top posts, directing grades, and superintending grades).¹ They constitute 9% of the works group (including temporaries) and earn between £3,500 and £7,450 per annum (Table 7.1); they carry out mainly managerial functions in the branches they head.

Another two of our sample groups are drawn from the lower grades—one of architects and surveyors, the other of engineers. These two sample groups cover the three lower grades in the class—the basic grade at the bottom, the main grade and the senior grade—this last being the career grade for the class. Annual salaries in these grades range from £1,242 to £3,105 (Table 7.1). Over two-fifths of the class are in the senior and basic grades, and nearly half are main grade members.

We have a fifth sample group—a composite one drawn from the works group as a whole and appropriately weighted². We have omitted the very small engineering cadet grade.

Sex and tenure

There are only fifteen women in the professional works group and they have been excluded from the survey. The female proportions in similar professions outside the Civil Service are equally miniscule, except for the Royal Institute of British Architects, 5% of whose members (mostly practising) are women.³

All but a negligible proportion of the upper grades are permanent. There is a slightly higher proportion of temporaries in the lower grades, but the figure is substantial only for the basic grade where 21% are temporaries. For the works group as a whole the proportion of temporaries is 9% which is less than that for the scientific officer and legal classes but above that for the other higher class, the administrative class.

It may be seen from Table 7.2, however, that 73% of the professional works group were initially appointed to the Civil Service as temporaries. This proportion is also similar to that in the scientific officer and legal classes but higher than that for the administrative class. Throughout the Civil Service the proportion of initially established recruits decreases among the subordinate classes and is lower for the technical and scientific than for the desk classes.

¹ Our questionnaire was sent to every member of these three grades.

² For details of the weighting procedure used see Annex I.

³ Viola Klein, “The demand for professional womanpower”, *British Journal of Sociology*, Vol. XVII, 1966, p. 187.

Table 7.1: Works group of professional classes: Grade by tenure and salary

	Directing grades and top posts	Superintending grade	Senior grade	Main grade	Basic grade	All
	%	%	%	%	%	%
% of class ²	3	6	23	51	17	100
% permanent ¹	99	99	95	92	79	91
Salary	£4,500– £7,450	£3,500– £4,000	£2,639– £3,105	£1,894– £2,150	£1,242 (at 25)– £1,672 (at 34)– £1,894	
(N) ³	(125)	(281)	(1,047)	(2,332)	(767)	(4,552)

¹ Calculated from figures in H.M. Treasury, *Professional Scientific and Technical Classes: Return by Departments of Posts and Staff in Post of selected Classes in Staff Groups 12, 13 and 14 for 1st January, 1966*.

² Civil Service Estimates 1967/68.

³ Permanent and temporary staff as estimated for 1st April, 1967.

Table 7.2: Works group of professional classes: Initial tenure on appointment

Initial tenure	Architects and surveyors		Engineers		All
	Upper grades	Lower grades	Upper grades	Lower grades	
	%	%	%	%	%
Permanent	38	21	42	29	27
Temporary	62	79	58	71	73
Total	100	100	100	100	100
(N)	(138)	(201)	(135)	(192)	(666)

Establishment on appointment tends to go with youth. For example, 43% of the class as a whole are under fifty compared with 60% of those who were initially established on appointment to the Civil Service. Yet figures not reproduced in this chapter indicate that the proportion of initially established members among direct entrants is similar for the different periods in which they were appointed. The reason for this apparent discrepancy is the disproportionate number of men initially appointed to the Civil Service in a temporary capacity who figure among promotees (who account for over a quarter of the class). Ninety per cent of promotees were initially temporary compared with 73% of the whole works group and 67% of the direct entrants (no table). Promotees, on average, have been in the Civil Service longer and are older than direct entrants in the same sample group.

Table 7.3: Works group of professional classes: Year of appointment¹ and year of permanent establishment to the Civil Service

Year	Architects and surveyors				Engineers			
	Upper grades		Lower grades		Upper grades		Lower grades	
	Appointed	Established	Appointed	Established	Appointed	Established	Appointed	Established
	%	%	%	%	%	%	%	%
1920-29	5	—	4	—	6	2	2	—
1930-39	48	37	30	11	65	59	35	8
1940-45	15	—	14	—	19	—	16	—
1946-49	15	40	28	38	3	27	12	34
1950-59	13	8	14	33	4	10	29	38
1960-66	5	15	10	17	3	2	6	20
Total	100	100	100	100	100	100	100	100
(N)	(86)	(138)	(159)	(201)	(78)	(135)	(136)	(192)

¹Staff immediately established on joining the Civil Service are excluded.

Length of service

Details of length of established and unestablished service in the Civil Service for the four component sample groups of the professional works group are set out in Table 7.3. The pattern of length of service which we have found among the desk and scientific classes is repeated here, in that the works group has longer serving members than its supporting classes. However, compared with other higher classes the architects and surveyors are relatively recent appointments to the Civil Service while the engineers in the upper grades typically have longer service than any of the other sample groups in our survey, except for the male clerical class and the men in the upper and middle grades of the executive class. The fact that nearly three-fifths of the upper engineers were established (and a higher proportion appointed) to the Civil Service before the war and only 2% established in the 1960's suggests that, for engineers especially, the path of promotion into the upper reaches of the works group is long and slow. The large difference in the seniority structure of the upper and lower engineers also points to the same conclusion. Thus, in 1965 staff in the works group, on being promoted into the senior grade (the career grade), had worked in the works group *on average* for seventeen years. This compares with an average of about fourteen years for the administrative class and of eleven years for the scientific officer class before reaching the career grade.¹ Architects and surveyors, however, differ somewhat in that 15% of those placed above the career grade have been civil servants for less than six years. In other words, they have been recruited to a greater extent directly into a high grade.

It may be useful to compare the pattern of service among engineers with a survey of members of the Institute of Mechanical Engineers.² In this study it was found that mechanical engineers stayed with the same employer for an average of 10.2 years which is clearly shorter than the average for the upper engineers in the Civil Service and probably shorter than that for the lower engineers. It seems that the Civil Service employs its engineer members over a long term rather than being one among a number of employers during the

¹ Calculated from Tables 23, 33 and 38 of H.M. Treasury, *Civil Service Manpower*, 1966.

² J. E. Gerstl and S. P. Hutton, *Engineers: the Anatomy of a Profession*, Tavistock Publications, London, 1966.

Table 7.4: Works group of professional classes: Method of permanent establishment to the Civil Service:

Method of permanent establishment	Architects and surveyors		Engineers		All
	Upper grades	Lower grades	Upper grades	Lower grades	
	%	%	%	%	%
Open competition	53	43	60	50	61
Post-war reconstruction competition	7	15	16	18	16
Nomination	36	27	21	19	21
Limited competition	1	11	2	11	2
Other	2	5	1	2	1
Total	100	100	100	100	100
(N)	(138)	(201)	(135)	(192)	(666)

career of an engineer.¹ By contrast, the high proportion of recent recruits to the upper grades of architects and surveyors suggest that Civil Service architects and surveyors are more autonomous professional groups who regard work in the Civil Service as just another post and do not, to the same extent as engineers, regard the Civil Service as a permanent home.

Method of permanent establishment to the Civil Service

Permanent entry into the professional works group is normally by continuous open competition and, as may be seen from Table 7.4, the majority of the class were permanently established to the Civil Service in this way. About one in five were nominated² into established posts and 16% were established through the post-war reconstruction competitions. The numbers established by limited or "other" competitions are negligible. Thus, compared with the subordinate technical classes, the present members of the professional works group have relied much more on open competitions and to a lesser extent on nomination and limited competition. At the same time, the pattern of recruitment in this class is similar to that of other higher classes, except that the proportion of nominees among the upper architects and surveyors is very high.

Within the professional works group those established by open competition and nomination are relatively concentrated in the upper grades. Grade for grade, nominees are more predominant among the architects and surveyors than among the engineers.

The differences between the upper and lower grades are mainly the result of changes in avenues of entry into both the works group and the Civil Service over the years rather than of different internal rates of promotion. In Table 7.5 we

¹ At the same time, compared with other Civil Service classes, a particularly small proportion of the Works group engineers have worked exclusively for the Civil Service (see p. 237 and Table 7.39).

² A large proportion of entrants to the basic grade, particularly among engineers, have qualified for entry while working in the sub-professional grades in the Service. Up to the age of thirty-four such people enter works groups through the normal competition; and if over thirty-four they enter by nomination i.e. departmental promotion.

Table 7.5: Works group of professional classes: Method of permanent establishment to the Civil Service according to method of entry into the works group of professional classes and to year of permanent establishment to the Civil Service

Method of permanent establishment	Established in the Civil Service										All ²		
	Before 1940		(Appointed) 1940-5		1946-50		1951-55		1956-60		1960 and after		Transfers
	Direct entrants	Promotees	Direct entrants	Promotees	Direct entrants	Promotees	Direct entrants	Promotees	Direct entrants	Promotees	Direct entrants	Promotees ¹	
Open competition	%	%	%	%	%	%	%	%	%	%	%	%	%
Post-war reconstruction competition	77	28	11	—	24	—	74	40	90	35	87	15	60
Nomination	—	—	50	3	50	5	2	33	—	—	—	8	10
Limited competition	21	68	21	74	23	86	2	—	—	10	2	59	8
Other	3	5	17	19	2	9	19	27	10	55	—	17	8
Total	—	—	—	3	1	—	2	—	—	—	11	1	15
(N)	100	100	100	100	100	100	100	100	100	100	100	100	100
	(127)	(43)	(60)	(29)	(125)	(45)	(55)	(18)	(9)	(9)	(76)	(145)	(26)
													(666)

¹ Including one promotee established to the Civil Service since 1960.

² There were too few transfers for separate analysis by year and method of permanent establishment to the Civil Service.

can examine changes in the methods by which both direct entrants and promotees from supporting classes became established to the Civil Service (the works group in the case of direct entrants) since before the war. It is clear that nomination ceased to be a method of establishment of any importance for direct entrants after the immediate post war period. About one-fifth of the present members of the class who entered it directly on joining the Civil Service and became established before 1950 are nominees; for those established since, the proportion is negligible. Open competition has completely predominated as the method of establishing direct entrants into the class since the 1950's, accounting for 90 % of those established between 1956-60 compared with 58 % of all direct entrants.

Nomination, and to a smaller extent limited competition, rather than open competition, are the methods of obtaining established Civil Service posts that present promotees in the class have disproportionately used. Thus 59 % of the promotees are nominees and 17 % were established by limited competition as against 21 % and 2 % respectively of the whole class. Only 15 % were established by open competition compared with 61 % of the class and 58 % of direct entrants. Among promotees to the professional works group more recently established in the Civil Service, however, open competition has increased and nomination decreased in importance as a method of permanent establishment to the Civil Service. Thus for both direct and indirect entrants into the professional works group nomination is of declining importance as a route to permanent establishment.

These different avenues of entry into both the Civil Service and the professional works group are associated with differences in social and educational background. Thus nomination, the declining method of permanent recruitment, is heavily associated with a relatively less privileged background, particularly in the lower grades. Nominees are more frequently of working class origins (49 % compared with 39 % of the class as a whole) and tend to have lower educational qualifications as well as a school education in the public sector (Tables 7.6 and 7.7). Only 42 % of them held a university degree or professional qualification on joining the Civil Service compared with 60 % of the class as a whole; 20 % were completely unqualified and 28 % had "O" levels only or lower qualifications compared with 7 % and 15 % respectively of the whole class. All this gives us a preliminary indication of the trends in educational background of the class. In particular, nomination emerges as a declining avenue of entry into the Civil Service, having supplied the professional works group with men with a wider than normal social background whose eligibility for the class has lain less in paper qualifications and more in practical experience through long service in the Civil Service.

Location

We have seen throughout this Survey that there is a general tendency for the higher rather than subordinate Civil Service classes to be relatively concentrated in inner London. The professional works group fits this pattern as may be seen from Table 7.8.

Some indication of the extent of local recruitment may be had by tabulating place of work against place of birth, as in Table 7.9. In fact, there is very little of it. It is true that half of the staff working in inner London were born in the

Table 7.6: Works group of professional classes: Method of permanent establishment to the Civil Service by highest educational qualification obtained before entry into the Civil Service

Highest qualification before entry	Open competition	Post-war reconstruction competition	Nomination	Limited competition	All ¹
	%	%	%	%	%
University higher or first degree	21	18	10	15	18
Membership of a professional institution	63	62	32	37	52
University diploma, "A" level(s), Higher National Certificate, Higher School Certificate	6	5	10	20	8
"O" level(s) Ordinary National Certificate and other qualifications	9	11	28	22	15
No qualification	2	3	20	7	7
Total	100	100	100	100	100
(N)	(337)	(96)	(170)	(48)	(666)

¹ Includes members who were established by "other" methods, of whom there were too few for separate analysis.

London and the South East region compared with 38% of the class as a whole, but the pattern of geographical origins of those working in outer London is very similar to that of the whole class. It is not surprising that local recruitment takes place only to a mild degree among the works group compared with their supporting technical classes. A third of them are graduates and the graduate market tends to be national. Moreover, the graduates tend to occupy the senior positions and these are somewhat concentrated at the London headquarters.

Departmental distribution

In the French Civil Service engineers and, to a lesser extent, architects combine professional and administrative responsibilities. By contrast, the professional works group in the British Civil Service is called upon to serve only in a professional capacity. It is a general service class, but not employed in as many departments as the executive or administrative classes, being limited strictly to departments dealing with its sphere of professional work (Table 7.10). Thus the great majority of the works group engineers are employed in the Ministry of Public Building and Works, the Defence departments and to a lesser extent in the Ministry of Transport, while the architects and surveyors are mainly in the same technical departments though among them the concentration is somewhat less in that nearly a third of the upper architects and surveyors are employed in the social departments, mainly the Ministries of Health, and Housing and Local Government and the Department of Education and Science.¹

¹ This summary of the departmental distribution of the professional works group does not refer to the departmental variants and related classes which were excluded from the sample survey. Thus there are other departments which employ large numbers of professional engineers (e.g. the Post Office) and valuation officers (the Inland Revenue) who belong to departmental variants to the works group of professional classes.

Table 7.7: The lower grades of the works group of professional classes: Method of permanent establishment to the Civil Service by type of full-time school last attended

Method of permanent establishment	Lower architects and surveyors					Lower engineers				
	Open competition	Post-war reconstruction competition	Nomination	Limited competition	All ¹	Open competition	Post-war reconstruction competition	Nomination	Limited competition	All ¹
Secondary modern	%	%	%	%	%	%	%	%	%	%
Technical	6	6	13	29	10	8	3	21	9	10
L.E.A. grammar	13	13	26	10	17	18	26	39	18	23
Direct grant	34	39	24	24	30	42	32	13	45	35
Public school and other fee paying	15	10	13	14	13	8	24	13	9	12
Schools abroad	31	29	19	24	27	21	6	13	14	16
and other	1	3	4	—	2	3	9	—	5	4
Total	100	100	100	100	100	100	100	100	100	100
Day school	87	87	87	90	88	94	94	95	82	93
Boarding school	13	13	13	10	12	6	6	5	18	7
Total	100	100	100	100	100	100	100	100	100	100
(N)	(86)	(31)	(54)	(21)	(201)	(96)	(34)	(38)	(22)	(192)

¹ Includes members who were established by "other" methods, of whom there were too few for separate analysis.

Table 7.8: Works group of professional classes: Location

Location	Architects and surveyors		Engineers		All
	Upper grades	Lower grades	Upper grades	Lower grades	
	%	%	%	%	%
Inner London	62	39	53	35	39
Outer London	9	7	8	10	9
North	7	10	6	8	9
Rest of England and Wales	12	30	27	36	32
Scotland	11	14	7	10	11
Total	100	100	100	100	100
(N)	(138)	(201)	(135)	(192)	(666)

Table 7.9: Works group of professional classes: Location by place of birth

Place of birth	Location				All
	Inner London	Outer London	North	Rest of England and Wales, and Scotland	
	%	%	%	%	%
North	17	23	39	21	21
London and South East	50	40	35	27	38
Rest of South and Midlands	17	17	8	19	17
Scotland, Wales and N. Ireland	11	12	13	28	19
Other	5	7	4	5	5
Total	100	100	100	100	100
(N)	(303)	(58)	(53)	(252)	(666)

As may be seen in Table 7.11 there is one difference among architects and surveyors employed in different types of department. Those in the social departments tend to be young, to have been appointed recently and to have been established on appointment. In the technical departments, on the other hand they tend to be older and to have had longer service. The difference possibly reflects the higher proportion of architects employed by the social departments than the technical departments where surveyors and allied occupations are more likely to predominate. It might also reflect differences of educational background. Thus, for example, only 60% of lower architects and surveyors in the technical departments had professional or university qualifications on entry into the Civil Service compared with 77% of those in the social department and 69% of the class as a whole.

Table 7.10: Works group of professional classes: Departmental distribution

Type of department	Architects and surveyors		Engineers		All
	Upper grades	Lower grades	Upper grades	Lower grades	
	%	%	%	%	%
Economic	8	13	1	2	8
Technical	53	63	88	88	73
Social	30	13	3	4	10
Other	9	11	7	6	8
Total	100	100	100	100	100
(N)	(138)	(201)	(135)	(192)	(666)

Table 7.11: Architects and surveyors in the works group of professional classes: Departmental distribution by year of permanent establishment to the Civil Service, initial tenure on appointment and age

Year of establishment	Architects and surveyors					
	Upper grades			Lower grades		
	Technical department	Social department	All ¹	Technical department	Social department	All ¹
	%	%	%	%	%	%
Before 1940 (Appointed)	55	10	40	21	4	16
1940-5	8	7	9	14	4	11
1946 and after	37	83	51	65	92	73
Total	100	100	100	100	100	100
Initial tenure						
	%	%	%	%	%	%
Permanent	38	46	38	18	38	21
Temporary	62	54	62	82	62	79
Total	100	100	100	100	100	100
Age						
	%	%	%	%	%	%
Under 33	—	—	—	—	8	2
33-50	8	44	20	35	58	43
Over 50	92	56	80	65	35	55
Total	100	100	100	100	100	100
(N)	(73)	(41)	(138)	(127)	(26)	(201)

¹ Includes staff in "economic" and "other" departments whose age, year of permanent establishment and initial tenure on appointment did not differ much from that of their sample group as a whole.

Table 7.12: Works group of professional classes, architects in Great Britain¹ and university teachers in applied science faculties²: Age

Age	Works group of professional classes				Architects in Great Britain	University teachers in applied science faculties 1961/22
	Architects and surveyors		Engineers			
	Upper grades	Lower grades	Upper grades	Lower grades		
	%	%	%	%	%	%
26-30	—	1	—	1	11	19 (aged under 30)
31-35	—	3	—	4	59	43 (30-39)
36-40	6	11	—	11		
41-45	4	15	1	20		
46-50	11	15	11	19	28	23 (40-49)
51-55	33	25	33	22		
56-60	38	21	47	15		
61-65	9	9	8	8	2	15(50 and over)
Over 65	—	—	—	—		
Total	100	100	100	100	100	100
(N)	(138)	(201)	(135)	(192)	(1,360)	(405)
Average age	55.0	50.7	56.0	49.4	X	X

¹ M. Abrams, *Architects*, p. 7, a survey conducted for the *Observer*, January, 1964.² *Report of the Committee on Higher Education (Robbins Report)*, Appendix Three, p. 30, H.M.S.O., Cmnd. 2154—III, London, October, 1963.

DEMOGRAPHIC COMPOSITION

Age and marital status

The professional works group has the highest average age of all the Civil Service classes in our survey (Table 7.12). The minimum age of entry into the class is officially twenty-five and there is almost no one under thirty. The group, moreover, has the highest proportion of men aged fifty or over, of all the classes. What is perhaps most striking is not so much the high average age of those in the upper grades (fifty-five of fifty-six) but of those in the lower grades (about fifty). Over half of the lower architects and surveyors and 45% of the lower engineers are over fifty. Indeed four out of five of the upper engineers are between fifty and sixty.

Moreover the class is composed of men older than their professional colleagues outside the Civil Service. Gerstl and Hutton give the average age of their sample of mechanical engineers as forty-one (and their sample was confined to those aged at least twenty-five). This average is eight years younger than the average

Table 7.13: Works group of professional classes: Marital status

Marital status	Architects and surveyors		Engineers		All
	Upper grades	Lower grades	Upper grades	Lower grades	
	%	%	%	%	%
Single	1	6	1	4	5
Married	96	92	99	94	94
Widowed/separated/divorced	2	2	1	2	2
Total	100	100	100	100	100
(N)	(138)	(201)	(135)	(192)	(666)

age of even the *lower* engineers. According to the *Observer* survey¹ of architects, 70% of the fellows and associates of the R.I.B.A. are under forty compared with only 6% of the upper and 15% of the lower architects and surveyors. Though we have already seen that there is some evidence of recent recruitment directly into the upper grades among the architects and surveyors, on the whole members of the professional works group do not climb beyond the career grade until a late age and after long service. Thus half the architects and surveyors and three-quarters of the engineers who are now in the upper grades have served in the Civil Service for at least twenty-one years. Of course this is partly a function of the very small numbers in the upper grades of the professional works group—9% of the class, compared with 46% of the administrative class who are assistant secretaries or above.

The average age of promotion from the basic to the main grade of the professional works group is 44.9 and from the main to the senior grade 46.2.² Part of the reason for these high average ages may be the considerable number of promotees from subordinate classes in the professional works group (27% of the class). The average age of entry into the basic grade from subordinate classes is 38.4.

We may therefore conclude that the high average age of the class is due to the recruitment to the two bottom grades of men already well into their thirties from outside or within the Civil Service. And it seems that engineers and architects and surveyors in the Civil Service, compared with those in industry and private practice, tend to hold jobs of lesser responsibility and smaller salary than do their professional counterparts of the same age and seniority.

One in twenty of the professional works group are bachelors, nearly all in the lower grades. This happens to be the smallest proportion for any of the male sample groups and is a reflection of their high average age (Table 7.13).

SOCIAL BACKGROUND

Geographical origins

The geographical origins of the professional works group are set out in Table 7.14 and compared with those of engineers outside the Civil Service and with

¹ M. Abrams, *Architects*, p. 7.

² H.M. Treasury, *Civil Service Manpower* 1966, Table 38.

Table 7.14: Works group of professional classes, and engineers in Great Britain^{1,2}: Place of birth; and the distribution of the U.K. population in 1911³ and 1961⁴

Region	Works group of professional classes					U.K. population in		chartered engineers ¹	Mechanical engineers ²
	Architects and surveyors		Engineers		All	1911 ³	1961		
	Upper grades	Lower grades	Upper grades	Lower grades					
	%	%	%	%	%	%	%	%	%
North	5	4	5	2	21	33	31	8	6
East and West Riding	3	3	4	6					
North West	12	7	11	8					
North Midlands	4	3	5	6					
London and South East	36	42	21	35	38	24	25	25	19
Rest of Midlands	3	3	6	4	17	23	26	10	11
East	7	3	1	4					
Rest of South	2	3	10	8					
South West	4	6	7	4					
Wales	4	5	6	5	19	20	18	3	5
Scotland	14	13	13	12					
N. Ireland	—	1	2	—					
Abroad	5	6	8	7					
Total	100	100	100	100	100	100	100	100	100
(N)	(138)	(201)	(135)	(192)	(666)			(X)	(977)

¹ B. A. McFarlane, *The Chartered Engineer: a study of the recruitment, qualifications, conditions of employment and professional associations of chartered, civil, electrical and mechanical engineers in Great Britain*, unpublished Ph.D. thesis, London School of Economics, 1961.

² J. E. Gerstl and S. P. Hutton, *op. cit.*, p. 29.

³ Calculated from *Census of England and Wales, 1911, Summary Report*, Tables III and VIII H.M.S.O., London.

⁴ Calculated from Tables 2 and 6 in *Census 1961, Preliminary Report*.

the general population in the country. Of the four broad regions distinguished, London and the South East provide the largest proportion of the professional works group, about twice as many as each of the other three regions, which all supply fairly equal proportions. Within the class those born in the North and the rest of the South and Midlands tend to be somewhat concentrated among the upper grades, and among engineers rather than the architects and surveyors. Conversely, London and the South East contributes relatively heavily to the lower grades and to the architects and surveyors.

There is nothing very remarkable about the distribution by geographical origin of the professional works group compared with other Civil Service classes. The proportion born in the North is rather low, the proportion born in Scotland, Wales and Northern Ireland, high. Comparison with engineers and with the general population is more interesting. In common with other Civil Service classes, the professional works group includes relatively more people born in London and the South East than in the rest of the South and Midlands and in the North. Under-representation of Northerners appears, if anything, to have increased, taking into account the population shift from the North between 1911 and 1961. This over-representation of those born in London and the South East is not due to the nature of the engineering and other professions represented in the professional works groups, but must have something to do with the Civil

Table 7.15: Works group of professional classes: Place of birth by highest educational qualification obtained before entry into the Civil Service

Highest qualification before entry	Place of birth					
	North	London and South East	Rest of South Midlands	Wales, Scotland and N. Ireland	Abroad	All
	%	%	%	%	%	%
University higher or first degree	29	10	17	16	30	18
Membership of a professional institution	54	55	47	49	50	52
University diploma, Higher National Certificate/Diploma, "A" level(s)	3	4	14	14	12	8
"O" level(s) and all other qualifications	8	21	13	16	3	15
No qualification	5	10	9	5	6	7
Total	100	100	100	100	100	100
(N)	(148)	(231)	(126)	(125)	(36)	(666)

Service as their employer. Indeed, according to two surveys¹ engineers generally are disproportionately born in the North (37–42% compared with 25% of the United Kingdom population of similar age).

As may be seen from Table 7.15 those born in London and the South East tend to have less than average qualifications, at least on joining the Civil Service, whereas Northerners and those born outside the U.K. are better qualified than average. A clue to the explanation of the pattern lies in the greater proportion born in London and the South East among promotees than among direct entrants. Promotees by definition began their Civil Service career in non-graduate classes, and our survey has shown that non-graduates are far more likely than graduates to be employed in the region in which they were born. Promotees in the professional works group mostly entered the Civil Service as members of the technical works or draughtsman class, both of which predominantly work in London and the South of England. Moreover, they have a relatively poor standard of education for the class as a whole.

Social class origins

In Table 7.16 there is a comparison of the social class origins of the professional works group with those of chartered civil, electrical and mechanical engineers, of graduate and non-graduate mechanical engineers, of works managers in industry, of applied science graduates in 1961/62 and university teachers in applied science. In addition, a comparison is made with the general population of the same age and social class as the professional works group (social class I).

The typical (median) member of the professional works group is middle class in background. His father was in an intermediate professional, managerial or administrative post or was perhaps a small employer or farmer, i.e. in the Registrar General's social class II. The proportion of each of the sample groups coming from this kind of background is 40% to 48%. As the professional works

¹ B. A. Mcfarlane, *op. cit.*, p. 29; and J. E. Gerstl and S. P. Hutton, *op. cit.*, pp. 29, 30.

Table 7.16: *Works group of professional classes; chartered engineers¹, mechanical engineers², works managers³, male applied science graduates⁴, Great Britain population in professional, high administrative and managerial occupations born 1910-1919⁵, and university teachers of applied sciences: Social class origins (father's occupation)*

Father's occupation	Works group of professional classes						Chartered engineers ¹	Mechanical engineers ²		Works technical and works service managers ³	Male applied science graduates 1961/2	Great Britain population in professional, high administrative and managerial occupations born 1910-1919 ⁵	University teachers of applied sciences ⁶
	Architects and surveyors		Engineers		All	Graduates		Non-graduate					
	Upper grades	Lower grades	Upper grades	Lower grades									
I Higher professional and managerial	% 20	% 17	% 22	% 13	% 16	% }	% 25	% 12	% 37	% 69	% }	% 67	% 13
II Intermediate professional and managerial	45	46	48	40	43	82	42	36					40
III (i) Skilled non-manual	7	9	7	9	10		9	6				29	39
III (ii) Skilled manual	22	18	19	32	24		19	35	53				
IV Semi-skilled	3	7	2	3	4		3	10			31	4	6
V Unskilled	1	1	1	1	1	16					8		
Other	2	1	1	2	2	2	2	1	2				2
Total	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(138)	(201)	(135)	(192)	(666)	(X)	(387)	(590)	(334)	(X)	(55)	(179)	

¹ B. A. McFarlane, *op. cit.*

² J. E. Gerstl and S. P. Hutton, *op. cit.*, p. 25.

³ Calculated from figures in R. V. Clements, *Managers, a study of their career in industry*, George Allen & Unwin, London, 1958.

⁴ *Report of the Committee on Higher Education (Robbins Report)* Appendix Two (B), p. 428.

⁵ D. V. Glass and J. R. Hall, *loc. cit.*, p. 187.

⁶ A. H. Halsey and M. Trow, *British Academics*, Faber and Faber (forthcoming).

group is part of the Registrar General's social class I the typical member has been upwardly mobile within the middle class over two generations. A quarter of the class as a whole are the sons of manual workers and 39 % are of working class background if routine non-manual workers (social class III (ii)) are included: this substantial minority has thus been particularly socially mobile. Moreover, the works group has a wider and more heterogeneous social class background than that stratum in British society, with a similar age and corresponding class position.

Within the professional works group there is a remarkable similarity in social class background between the upper and lower grades, and architects, surveyors and engineers. It may be noted, however, that a high proportion of the lower engineers are sons of skilled manual workers (32 % compared with 24 % of the whole class). Compared with other higher Civil Service classes the group is very similar in class composition to the male administrative class, more middle class in background than the scientific officer class and less so than the legal class. Compared with the same professions outside the Civil Service,¹ upper engineers appear to be more middle class in background than graduate mechanical engineers, university teachers of applied science or the applied science student who graduated in 1961/62; and both upper and lower engineers are very much more middle class in background than works managers. What is particularly interesting is that as a group, upper engineers are more middle class in background than *graduate* mechanical engineers and the applied science *graduates* of 1961/62 and yet they include only 62 % who have been to a university or to some other institution of higher education. Lower engineers appear to be recruited more heavily from the working class than McFarlane's sample of chartered engineers but less than manager-engineers in industry according to Clements' study and less than non-graduate engineers in general. This is partly because the lower engineers include 27 % who are graduates. There is a noticeably similar difference in social composition between upper and lower engineers in the Civil Service on the one hand, and between graduate and non-graduate engineers outside on the other. To the extent that a major difference between the two sample groups is that of university education and to the extent that the two sample groups are similar in class composition to the graduate and non-graduate groups of mechanical engineers sampled by Gerstl and Hutton, Civil Service engineers would appear to be similar in class background to mechanical engineers in the country generally.

A very rough measure of the "career success" of those with middle class and working class origins is provided in Table 7.17. In the professional works group as a whole a slightly greater proportion of present staff established before 1946 or appointed during the war with middle class as against working class origins are now in the upper grades. This difference is contributed mainly by the engineers; so that among architects and surveyors established before 1946 or appointed during the war, those with working class origins are now in the upper grades in a proportion equal to that of members with a middle class background. Studies of engineers outside the Civil Service have also concluded that those of

¹ The comparisons that follow are slightly complicated by the different methods of classification used in each study.

Table 7.17: Works group of professional classes: Grade distribution according to year of permanent establishment to the Civil Service and social class origins (father's occupation)

Present grade	Established before 1940 or appointed 1940-45					
	Architects and surveyors		Engineers		All	
	Middle class ¹	Working class ²	Middle class ¹	Working class ²	Middle class ¹	Working class ²
	%	%	%	%	%	%
Upper grades	54	57	76	58	66	58
Lower grades	46	43	24	42	34	42
Total	100	100	100	100	100	100
(N)	(78)	(42)	(97)	(48)	(175)	(90)
Present grade	Established after 1945					
	%	%	%	%	%	%
Upper grades	35	30	21	13	29	21
Lower grades	65	70	79	87	71	79
Total	100	100	100	100	100	100
(N)	(141)	(71)	(99)	(77)	(240)	(148)

¹ Registrar General's social classes I and II.

² Registrar General's social classes III-V.

middle class origin tend to be somewhat more "successful" than the sons of manual workers.¹

This difference in the "career success" of engineers partly explains the difference in class structure between the upper and lower engineers. A disproportionate recruitment of engineers from working class backgrounds in recent years might also explain the difference but there is no evidence of such a trend in recruitment. Nevertheless, the class background of the *younger* members is different from that of their elders, and is compared with the changing class background of different age groups of engineers outside the Civil Service in Table 7.18.

Younger members in the professional works group tend to be drawn somewhat disproportionately from two particular social classes—the "white collar" workers (III(i)) and, to a lesser extent, the semi-skilled and unskilled manual workers, i.e. generally from the working class (social classes III to V) even though they are drawn relatively less from the skilled manual working class. Moreover, it is clear from Table 7.18 that among both graduate and non-graduate mechanical engineers and among chartered engineers of whatever specialism outside the Civil Service a similar phenomenon occurs. The younger age groups are considerably more heavily recruited from the families of manual workers.

Some notion of the avenues taken by men from different class origins into the professional works group may be had from the figures on educational background given in Table 7.19. The "higher" the social class origin of a member

¹ McFarlane and Gerstl and Hutton use the same measure for "success", i.e. comparative income within different age groups. McFarlane divides his sample into "very successful", "moderately successful" and "least successful" according to whether, within their age group, they come into the top, middle or bottom third in income. Gerstl and Hutton divide their sample into "successful" and "unsuccessful" according to whether, within their age group, they earn above or below the median income. In both studies the result is that the higher a member's social class origin the more likely he is to be "successful".

Table 7.18: Engineers in the works group of professional classes; mechanical engineers¹ and chartered engineers²: Age by social class origins (father's occupation)

Father's occupation	Works group of professional Classes																			
	All			Engineers					Mechanical engineers ¹						Chartered engineers ²					
				Upper grades		Lower grades			Graduates			Non-graduates								
				Under 33	33-50	Over 50	Under 33	33-50	Over 50	Under 39	39-48	Over 48	Under 39	39-48			Over 48	Under 34	34-54	Over 54
I Higher professional and managerial	%	16	12	19	18	%	23	%	17	8	17	%		%		%		%		
II Intermediate professional and managerial	28	44	43	47	53	33	45	35	33	45	35	70	80	76	42	56	68	80	82	86
III (i) Skilled non-manual	27	12	7	6	12	17	10	8	17	10	8	}	20	24	58	44	32	19	4	8
(ii) Skilled manual	14	24	25	19	18	33	29	35	33	29	35									
IV and V Semi and unskilled	15	7	4	3	—	—	6	2	—	6	2	—	—	—	—	—	—	—	2	6
Other	—	1	3	2	—	—	2	2	—	2	2	—	—	—	—	—	—	—	2	6
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(10)	(232)	(424)	(118)	(17)	(6)	(100)	(86)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)

¹ J. E. Gerstl and S. P. Hutton, *op. cit.*, p. 26.² B. A. McFarlane, *op. cit.*

Table 7.19: Works group of professional classes: Social class origins (father's occupation) by highest educational qualification obtained before entry into the Civil Service, school leaving age and type of full-time school last attended

Highest qualification before entry	I Higher professional and managerial	II Intermediate professional and managerial	III(i) Skilled non-manual	III(ii) Skilled manual	IV and V Semi and unskilled	All ¹
University first or higher degree	%	%	%	%	%	%
Membership of a professional institution	28	22	18	7	7	18
University diploma, "A" level(s), Higher National Certificate, Diploma	53	57	50	47	40	52
"O" level(s) and all other qualifications	9	3	16	11	12	8
No qualification	9	13	10	25	17	15
Total	100	6	6	10	25	7
		100	100	100	100	100
School leaving age						
	%	%	%	%	%	%
15 and under	7	15	16	34	30	20
16 and over	93	85	84	66	70	80
Total	100	100	100	100	100	100
Type of school						
	%	%	%	%	%	%
Secondary modern	2	7	6	15	6	9
Technical	9	12	23	30	50	20
Grammar	22	35	39	36	32	33
Direct grant	12	18	12	6	1	13
Public school and other fee paying	47	24	17	11	12	23
Schools abroad and other	8	3	3	1	—	3
Total	100	100	100	100	100	100
	%	%	%	%	%	%
Day school	68	89	97	98	88	89
Boarding school	32	11	3	2	12	11
Total	100	100	100	100	100	100
(N)	(47)	(297)	(55)	(152)	(33)	(666)

¹ Includes members with "other" unclassifiable or unidentifiable social class origins of whom there were too few for separate analysis.

of the group the more likely is it that he came in with a university degree or professional qualification, left school at sixteen or over and went to a direct grant, "public" or fee paying school.

EDUCATIONAL BACKGROUND AND QUALIFICATIONS

Educational qualifications before entry

Details of the total and highest educational qualifications held on entry into the Civil Service by the professional works group are set out in Table 7.20. The normal qualification requirements for direct entry into the class are corporate membership of the appropriate professional institution, plus professional ability and experience. But some departmental engineers are appointed to the basic grade without such corporate membership and the engineers cadet grade recruits university or college of advanced technology graduates and trains them for corporate membership. Moreover, the class takes promotees from supporting

Table 7.20: Works group of professional classes: Total and highest educational qualifications obtained before entry into the Civil Service

Qualifications before entry	Total qualifications ¹				Highest qualification					
	Architects and surveyors		Engineers		Architects and surveyors		Engineers		All	
	Upper grades	Lower grades	Upper grades	Lower grades	Upper grades	Lower grades	Upper grades	Lower grades		
Ph. D., B.Litt, etc.	%	%	%	%	%	%	%	%	%	
M.A., M.Sc. etc.	3	—	4	2	3	—	9	3	2	
University first degree	12	6	58	24						11
Membership of a professional institution	85	65	72	55	73	61	29	41	52	
Dip. Tech.	4	2	1	1	2	1	—	1	1	
University diploma	12	6	9	5						2
Higher National Certificate	2	5	12	26	2	3	5	11	7	
Higher School Certificate	19	9	30	19						4
"O" level(s)	54	46	50	44	4	11	2	6	8	
Ordinary National Certificate	5	5	10	29	—	1	—	5	2	
City and Guilds Certificates	13	7	7	11	1	5	2	6	5	
R.S.A. examinations	4	4	—	3						4
Industrial apprenticeship	8	11	7	12	4	11	2	5	7	
No qualification	4	10	2	5						100
Total	*	*	*	*	100	100	100	100	100	
(N)	(138)	(201)	(135)	(192)	(128)	(201)	(135)	(192)	(666)	

¹ Weighted figures on the total qualifications of the whole works group of professional classes are unavailable.

* Totals add up to over 100 because many members possessed more than one qualification before entering the Civil Service.

classes who might have only gained professional qualifications after entering the Civil Service or who were promoted on the basis of their experience rather than paper qualifications. Thus the figures for qualifications achieved before entry (Table 7.20) do not reflect the full qualifications of those in this class.

Membership of a professional body is the most common qualification. There is however, a considerable gap in qualifications between the upper and lower grades of the class and this is true whether total or highest qualifications are considered. University graduates and corporate members of professional institutions are more frequently found in the upper than the lower grades and vice versa for staff with sub-university and sub-professional qualifications. But membership of a professional body is not the crucial distinction between the higher and lower grades, especially if highest pre-entry qualifications are considered alone. Then the essential difference between the upper and lower architects is still that the former are more frequently both university graduates and professionally qualified; among the engineers the essential difference between the upper and lower grades is the possession of a degree.

The professional works group compares badly in terms of formal qualifications with other higher Civil Service classes, which follows from the lower minimum educational requirements for entry into the class and its relatively large proportion of promotees. The minimum requirements for entry into the legal class are similar, but in fact the lawyers are mainly graduates. The professional works group has the smallest proportion of pre-entry graduates and post-graduates of all these classes, and the highest proportion of members with sub-university, diploma or professional qualifications on joining the Civil Service.

Table 7.21: Works group of professional classes: Grade distribution according to year of permanent establishment to the Civil Service and highest educational qualification obtained before entry into the Civil Service

Present Grade	Established before 1940			All
	University first and higher degree	Membership of a professional institution, dip. tech., and univ. diploma	All other qualifications, including none	
	%	%	%	%
Upper grades	88	79	59	72
Lower grades	12	21	41	28
Total	100	100	100	100
(N)	(69)	(75)	(53)	(197)

Present grade	Appointed 1940-45			
	%	%	%	%
Upper grades	64	39	17	38
Lower grades	36	61	83	62
Total	100	100	100	100
(N)	(14)	(41)	(18)	(73)

Present Grade	Established after 1945			
	%	%	%	%
Upper grades	38	29	7	26
Lower grades	62	71	93	74
Total	100	100	100	100
(N)	(77)	(232)	(87)	(396)

"Career success" for both architects and surveyors and engineers is geared closely to pre-entry qualifications as is demonstrated in Table 7.21. Those who were established before the war with a university degree are somewhat more likely to have reached the upper grades by now than those established in the same period with membership of a professional institution only. There is however, a third group with relatively poor "career success"¹ consisting of those whose highest pre-entry qualification was lower than a university degree or than professional membership. Our figures, however, do not cover other staff established in the same period who have since left the works group.

Recent trends in the educational attainments of recruits have been towards membership of a professional institution, or possession of a university diploma or dip. tech. (Table 7.22) and away from the possession of a university degree, whether direct entrants or promotees are considered. Thus 12% to 15% of the direct entrants in the 1950's still in the class came in with a university degree compared with 43% of the surviving staff established pre-war, and with 21%

¹ i.e. with relatively few in the upper grades of the professional works group.

Table 7.22: Works group of professional classes: Highest educational qualification obtained before entry into the Civil Service according to method of entry into the works group of professional classes and year of permanent establishment to the Civil Service

Highest qualification before entry	Established												All
	Before 1940		(Appointed) 1940-45		1946-50		1951-55		1956-60		1961 and after		
	Direct entrants	Promotees	Direct entrants	Promotees	Direct entrants	Promotees	Direct entrants	Promotees	Direct entrants	Promotees	Direct entrants	Promotees ¹	
University first and higher degree	%	%	%	%	%	%	%	%	%	%	%	%	
Membership of a professional institution, dip. tech., univ. diploma	43	2	16	4	22	6	15	11	12	10	20	21	
All other qualifications	51	9	74	20	57	23	68	21	69	37	76	66	
No qualification	5	49	7	54	17	48	15	56	19	52	3	12	
Total	1	40	3	22	5	22	2	12	—	—	—	2	
	100	100	100	100	100	100	100	100	100	100	100	100	
(N)	(127)	(43)	(60)	(29)	(125)	(45)	(55)	(18)	(9)	(9)	(76)	(495)	
												(145)	

¹ Including one promotee established in the Civil Service since 1960.

Table 7.23: Works group of professional classes: Highest educational qualification obtained before entry into the Civil Service by age and type of full-time school last attended

Age	University first and higher degree	Membership of professional institution dip. tech., univ. diploma	All other qualifications	No qualification	All
	%	%	%	%	%
Under 33	5	2	—	—	2
33-50	37	46	40	18	41
Over 50	58	52	60	82	57
Total	100	100	100	100	100
Type of School					
	%	%	%	%	%
Secondary modern	—	7	14	20	9
Technical	8	16	30	39	20
L.E.A. grammar	35	36	33	12	33
Direct grant	11	15	11	5	13
Public school and other fee paying	39	22	12	19	23
Schools abroad and other	7	3	—	5	3
Total	100	100	100	100	100
	%	%	%	%	%
Day school	76	90	97	87	94
Boarding school	24	10	3	13	6
Total	100	100	100	100	100
(N)	(160)	(348)	(118)	(40)	(666)

of all direct entrants. This decline in the direct recruitment of graduates has been associated with a growth in the proportion of direct entrants joining the class, mainly with professional qualifications but also holding university diplomas and the dip. tech., between the pre-war period (51%) and the 1960's (76%). Among promotees there has been a similar increase in the proportion of those established recently with professional qualifications and university diplomas, from 9% of those established before 1940 to 37% of those established in the 1960's. Table 7.23 points to the same conclusion by showing the younger than average age of staff with these qualifications. These trends are somewhat in contrast with those for works managers in industry where, according to Clements,¹ the trend among younger recruits is towards graduates rather than those with a diploma or a professional qualification. The table (7.23) also shows the school background of those with different pre-entry qualifications. It is worth remarking here that 8% of those who were graduates on entering the Civil Service attended a technical school and that 19% of the unqualified at entry were educated at public and other fee paying schools.

School attended and school leaving age

The type of secondary school attended by members of the professional works group is compared in Table 7.24 with figures for men graduating in applied science in 1961-62, with architects and chartered surveyors, engineers, works managers in industry, and university teachers of applied science.

¹ R. V. Clements, *op. cit.*, p. 183.

Table 7.24: Works group of professional classes, 1961/2 male applied science graduates,¹ new members of R.I.B.A.² and R.I.C.S.³ engineers^{4,5}, works managers⁶, and university teachers of applied science⁷: Type of full-time school last attended

Type of school	Works group of professional classes					Male applied science graduates 1961/21	New members of R.I.B.A. ² 1962	New members of R.I.C.S. ³ 1962	Engineers (Members of Guild of Engineers) ⁴	Chartered engineers ⁵	Works, technical, and works service managers ⁶	University teachers in applied science ⁷
	Architects and surveyors		Engineers		All							
	Upper grades	Lower grades	Upper grades	Lower grades								
Secondary modern Comprehensive Technical L.E.A. grammar Direct grant Public and other fee paying schools Schools abroad Others Total	%	%	%	%	%	%	%	%	%	%	%	%
	4	10	1	10	9	14	68	9	28	47	178	
	—	1	1	—	—	—	—	—	—	—	—	
	12	17	11	24	20	66	—	—	—	—	—	
	31	30	34	35	33	13	45	66	43	31	61	
	14	12	21	11	13	—	15	—	—	—	10	
	36	27	29	16	23	21	26	25	26	19	13	
	2	1	2	3	3	—	—	—	3	3	—	
	1	2	1	1	—	—	—	—	—	—	—	
	100	100	100	100	100	100	100	100	100	100	100	
Day school Boarding school Total (N)	%	%	%	%	%	%	%	%	%	%	%	%
	80	88	81	93	89	X	X	X	X	X	X	X
	20	12	19	7	11	X	X	X	X	X	X	X
	100	100	100	100	100	X	X	X	X	X	X	X
	(138)	(201)	(135)	(192)	(666)	(577)	(1,360)	(276)	(42)	(X)	(332)	(179)

1. Report of the Committee on Higher Education (Robbins Report), Appendix Two (B), p. 8.
 2. M. Abrams, p. 11.

3. Report of the Committee on Higher Education (Robbins Report), Appendix Two (B), p. 378.

4. K. Prandy, *Professional Employees: a study of scientists and engineers*, p. 110; Faber and Faber, London, 1965.

5. B. A. McFarlane, *op. cit.*

6. R. V. Clements, *op. cit.*, p. 180.

7. A. H. Halsey and M. Trow, *op. cit.*

8. This figure also refers to "other" schools and schools abroad.

Table 7.25: Works group of professional classes and new members of the R.I.C.S.¹: School leaving age

School leaving age	Works group of professional classes					New members of the Royal Institute of Chartered Surveyors ¹
	Architects and surveyors		Engineers		All	
	Upper grades	Lower grades	Upper grades	Lower grades		
	%	%	%	%	%	%
13 and under	1	—	—	—	9	7
14	4	8	—	12		
15	6	14	5	9	11	35
16	30	26	33	32	29	
17	31	35	31	22	50	
18	23	12	27	19		
19 and over	2	3	3	4	—	
No answer	2	2	—	1		
Total	100	100	100	100	100	100
(N)	(138)	(201)	(135)	(192)	(666)	(276)
Average school leaving age	16.51 years	16.39 years	16.73 years	16.23 years	16.45 years	X

¹ Report of the Committee on Higher Education (Robbins Report) Appendix Two (B), p. 378.

The professional works group is fairly evenly divided between three groups: the 29% who attended secondary modern or technical schools, or their past equivalents; the one-third who went to L.E.A. grammar schools; and the 36% who were educated at direct grant, public or other fee paying schools. There are some slight differences between the four sample groups. Relatively more members in the upper than the lower grades went to direct grant, fee paying and boarding schools. Architects and surveyors, despite the smaller proportion of graduates among them, were more commonly educated in the private sector than engineers.

For a higher Civil Service class the professional works group has a rather large proportion of members educated in the state sector and in non-selective schools. Thus the school background of the engineers in the lower grades is more similar to that of an intermediate Civil Service class, such as the experimental officer class, than to a higher class. This is partly due to the particularly high proportion of promotees among the lower engineers (Table 7.45).

Comparing the schooling of the architects and surveyors in the professional works group with that of their professional colleagues in the country generally, it appears that the Civil Service has relatively high proportions of ex-public school boys compared with ex-L.E.A. grammar school boys. Thus 36% of the architects and surveyors in the upper grades and 27% of those in the lower grades have attended public and other fee paying schools compared with 26% of the corporate members of the R.I.B.A.¹ and 22% of the new corporate members of the R.I.C.S. in 1962.

¹ The comparison with R.I.B.A. is not, however, statistically significant.

Table 7.26: Works group of professional classes: Grade distribution according to year of permanent establishment to the Civil Service and type of full-time school last attended

Present grade	Established before 1940						
	Secondary modern and technical	L.E.A. grammar	Direct grant	Public and other fee paying	Day school	Boarding school	All ¹
	%	%	%	%	%	%	%
Upper grades	48	78	87	76	71	79	72
Lower grades	52	22	13	24	29	21	28
Total	100	100	100	100	100	100	100
(N)	(46)	(64)	(31)	(51)	(168)	(29)	(197)
Present grade	Appointed 1940-5						
	%	%	%	%	%	%	%
Upper grades	17	41	54	47	38	40	38
Lower grades	83	59	46	53	62	60	62
Total	100	100	100	100	100	100	100
(N)	(18)	(27)	(13)	(15)	(68)	(5)	(73)
Present grade	Established after 1945						
	%	%	%	%	%	%	%
Upper grades	15	21	25	40	22	47	26
Lower grades	85	79	75	60	78	53	74
Total	100	100	100	100	100	100	100
(N)	(93)	(125)	(52)	(108)	(339)	(57)	(396)

¹ Includes staff who attended "other" schools of whom there were too few for separate analysis.

Comparisons between the samples of engineers are more complicated. It seems that the engineers in the upper grades, like the architects and surveyors, have a relatively "privileged" school background, compared with works managers, and teachers and students of the applied sciences in the universities. But for lower engineers this comparison only holds against works managers and university teachers of applied science (and is not a statistically significant difference).

The average age at which members of the works group left school was sixteen and a half (Table 7.25). The upper grades of both the architects and surveyors and the engineers left school later, on average, than their colleagues in the lower grades. For example, 22% of the architects and surveyors in the lower grades left school at fifteen or earlier compared with half as many in the upper grades; 45% of the lower engineers as against 61% of the upper engineers stayed at school until at least seventeen. A survey of the new corporate members of the Royal Institute of Chartered Surveyors in 1962 reveals that they left school, on average, slightly later than architects and surveyors in the Civil Service.

Table 7.27: Works group of professional classes: Grade distribution according to year of permanent establishment to the Civil Service and to school leaving age

Present grade	Established before 1940								All
	Architects and Surveyors				Engineers				
	Under 16	16	17 and over	All	Under 16	16	17 and over	All	
	%	%	%	%	%	%	%	%	%
Upper grades	47	71	63	63	57	71	87	80	72
Lower grades	53	29	37	37	43	29	13	20	28
Total	100	100	100	100	100	100	100	100	100
(N)	(19)	(28)	(41)	(88)	(7)	(38)	(64)	(109)	(197)
Present grade	Appointed 1940-45								
	%	%	%	%	%	%	%	%	%
Upper grades	29	64	22	36	17	33	53	41	38
Lower grades	71	36	78	64	83	67	47	59	62
Total	100	100	100	100	100	100	100	100	100
(N)	(7)	(11)	(18)	(36)	(6)	(12)	(19)	(37)	(73)
Present grade	Established after 1945								
	%	%	%	%	%	%	%	%	%
Upper grades	14	27	40	32	6	30	20	20	27
Lower grades	86	73	60	68	94	70	80	80	73
Total	100	100	100	100	100	100	100	100	100
(N)	(35)	(56)	(120)	(211)	(35)	(47)	(87)	(169)	(380)

Tables 7.26 and 7.27 show grade distributions of the professional works group according to year of establishment to the Civil Service, type of school and school leaving age. The figures show that staff who attended direct grant or independent fee paying schools are rather more likely to be in the upper grades whatever the period of their establishment. Similarly there is a correlation between a relatively late school leaving age and the likelihood of being in the upper grades, though this general relationship does not hold for architects and surveyors established before 1946 or for engineers entering the Civil Service after the war. Nonetheless, the general pattern is that promotion beyond the career grade is related to quality of educational background whether the latter be measured by pre-entry qualifications, school leaving age or type of school attended.¹

All this poses the question as to which is the key factor in educational background related to "career success". A short step towards an answer is provided in Table 7.28 where distribution between the upper and lower grades is related to both type of school and pre-entry qualifications. We already know that high

¹ McFarlane also found in his sample of chartered engineers that those who attended fee paying schools tended to be concentrated in his category of "most successful", *op. cit.*

Table 7.28: Works group of professional classes: Grade distribution according to type of full-time school last attended and highest educational qualification obtained before entry into the Civil Service

Present grade	Secondary modern and technical			L.E.A. grammar			Direct grant			Public and other fee paying		
	University first and higher degree	Member of prof. inst. and univ. dip.	Other and no qualifications	University first and higher degree	Member of prof. inst., and univ. dip.	Other and no qualifications	University first and higher degree	Member of prof. inst., and univ. dip.	Other and no qualifications	University first and higher degree	Member of prof. inst., and univ. dip.	Other and no qualifications
Upper grades	% 58	% 29	% 15	% 56	% 39	% 24	% 79	% 45	% 21	% 62	% 51	% 25
Lower grades	42	71	85	44	61	76	21	55	79	38	49	75
Total	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(12)	(75)	(72)	(52)	(118)	(45)	(24)	(53)	(19)	(64)	(91)	(12)

Table 7.29: Works group of professional classes: School leaving age and type of full-time school last attended according to method of entry into the works group of professional classes and year of permanent establishment to the Civil Service

School leaving age	Established										All	
	Before 1940		(Appointed) 1940-5		1946-55		1951-60		1957-63		Direct entrants	Promotees
	Direct entrants	Promotees	Direct entrants	Promotees	Direct entrants	Promotees	Direct entrants	Promotees	Direct entrants	Promotees		
15 and under	%	%	%	%	%	%	%	%	%	%	%	%
16	6	38	18	21	19	23	21	7	28	12	18	25
17 and over	37	30	21	35	32	34	28	40	19	11	28	31
No answer	57	32	61	44	48	42	50	49	53	66	53	43
Total	100	100	100	100	100	100	100	100	100	100	100	100
Type of school	Before 1940		(Appointed) 1940-5		1946-55		1951-60		1957-63		Direct entrants	Promotees
	Direct entrants	Promotees	Direct entrants	Promotees	Direct entrants	Promotees	Direct entrants	Promotees	Direct entrants	Promotees		
	%	%	%	%	%	%	%	%	%	%	%	%
Secondary modern	5	20	11	10	6	10	8	4	15	12	8	12
Technical	13	42	16	29	12	37	6	33	6	10	13	34
L.E.A. grammar	32	24	38	25	34	23	41	33	32	34	35	25
Direct grant	12	6	18	12	17	11	15	7	9	22	14	11
Public school and other fee paying	36	2	18	24	28	17	27	23	30	22	27	16
Schools abroad and other	1	5	—	—	3	2	3	—	7	—	3	2
Total	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(127)	(43)	(60)	(29)	(180)	(63)	(107)	(27)	(102)	(11)	(495)	(145)

Table 7.30: Works group of professional classes: Type of full-time school last attended by age

Age	Secondary modern	Technical	L.E.A. grammar	Direct grant	Public and other fee paying	All ¹
	%	%	%	%	%	%
Under 33	—	—	3	3	2	2
33-50	33	42	49	34	39	41
Over 50	67	58	47	63	59	57
Total	100	100	100	100	100	100
(N)	(46)	(111)	(216)	(96)	(174)	(666)

¹ Includes staff who attended "other" schools, of whom there were too few for separate analysis.

pre-entry qualifications and "privileged" schooling are correlated and that both are correlated with membership of the upper grades. The figures indicate that high pre-entry qualifications are the more strongly associated with membership of the upper grades. Thus among each category of type of school there is a greater proportion of graduates than of professionally qualified people among those who have reached the upper grades. But, when pre-entry qualification is held constant, type of school is not a consistently decisive factor in determining membership of the upper grades.

Differences in the educational background of the upper and lower grades could also be attributable to trends in recruitment. There has been a steady decline of direct entrants educated at direct grant and fee paying schools among survivors from the recent intake (Table 7.29). For example, 48% of the surviving direct entrants who were first established before the war went to direct grant and fee paying schools, compared with 42% of those established in the 1950's and 39% of those established between 1957 and 1963. The more exclusive schooling of those promotees most recently established in the Civil Service does not alter the overall trend towards the recruitment into the works group of men educated in the state sector; the youngest members (whether promotees or direct entrants) disproportionately attended technical or L.E.A. grammar schools (Table 7.30). Similarly, recruitment trends are reflected in the correlation between a relatively late school leaving age and membership of the upper grades. There has been a gradual increase in the proportion of direct entrants who left school earlier than 16, from 6% of those established before the war to 28% of those established between 1957 and 1963. Again, a slight tendency in the reverse direction among promotees does not significantly affect the overall trend.

The strong connection between a late school leaving age and attendance at a selective type of school is shown in Table 7.31.

HIGHER EDUCATION

The higher education of members of the professional works group is compared with that of three groups of engineers outside the Civil Service in Table 7.32.

Table 7.31: Works group of professional classes: Type of full-time school last attended by school leaving age

School leaving age	Secondary modern	Technical	L.E.A. grammar	Direct grant	Public and other fee paying	All ¹
	%	%	%	%	%	%
14 and under	76	4	1	2	—	9
15	15	24	9	4	7	11
16	6	39	35	35	21	29
17 and over	3	29	54	59	71	50
No answer	—	4	1	—	—	—
Total	100	100	100	100	100	100
(N)	(46)	(111)	(216)	(96)	(174)	(666)

¹ Includes staff who attended "other" schools, of whom there were too few for separate analysis.

It should be noted first, however, that of all the higher Civil Service classes the professional works group has the lowest proportion of those who have attended institutions of higher education or graduated from a university. From this point of view it resembles the experimental officer class. Apart from recruitment to the engineering cadet grade direct entrants are not required to hold a degree, despite the increasing role of universities and other institutions of higher education in the teaching of the applied sciences and despite the growing demand from industry for graduate engineers.¹ Applicants must be members of the appropriate professional institution and have professional experience. Thus, only one in five of the professional works group has received any kind of university education. This does not mean, however, that four fifths of the class received no further education after leaving school. Survey figures not included here show that, apart from graduates, a further 41% of the engineers in the upper grades and a further 17% in the lower grades entered on further studies. Among architects and surveyors, apart from graduates, only a further 5% in the upper grades and 4% in the lower grades reported that they received any kind of further education. There are other important differences between the four sample groups. Among both the architects and surveyors and the engineers, there are relatively more graduates in the upper than in the lower grades, and the engineers are more than four times as likely to have attended an institution of higher education than the architects and surveyors. By contrast, in the French and German civil services it is usual for their equivalent of the professional works group to have had a university education and also post-graduate training of two or three years. For example, some two-thirds of the members of the Corps de Ponts et Chaussées are graduates of the Ecole Polytechnique and subsequently of the Ecole de Ponts et Chaussées. The Australian civil service is more similar to the British with a high proportion of its engineers entering through non-university cadet schemes. Part of the explanation lies in the different nature of professional education in these countries.

¹ Engineers recruited to the scientific officer class, however, are normally required to possess a second class honours degree.

Table 7.32: Works group of professional classes, mechanical¹ and chartered engineers²: and members of the Engineers Guild³: Institution of higher education

Institution of higher education	Works group of professional classes					Mechanical engineers ¹	Chartered engineers ²	Members of Engineers Guild ³
	Architects and surveyors		Engineers		All			
	Upper grades	Lower grades	Upper grades	Lower grades				
	%	%	%	%	%	%	%	%
University full-time	12	6	52	20	15	18	} 46	} 50
University part-time and other institutions full or part-time ⁴	1	—	10	7	4	4		
None	87	94	38	73	81	78		
Total	100	100	100	100	100	100	54 100	50 100
(N)	(138)	(201)	(135)	(192)	(666)	(1,760)	(X)	(44)

¹ J. E. Gerstl and S. P. Hutton, *op. cit.*, p. 42: (N) is a weighted figure.

² B. A. McFarlane, *op. cit.*

³ K. Prandy, *op. cit.*, p. 110.

⁴ Evenly distributed over university part-time, and other institutions (e.g. regional colleges, C.A.T.s), full or part-time.

Compared with engineers in various specialisms outside the Civil Service the lower Civil Service engineers, who form the majority, are less commonly graduates than chartered engineers and members of the Engineer's Guild, but more commonly than mechanical engineers. But the members of the upper grades, who form a small senior minority, have educational qualifications superior to any of the cited samples of engineers outside the Civil Service of whatever specialism or seniority.

As may be seen from Table 7.33, attendance at a university as a full time student has some relation with "career success" for engineers. The same pattern has also been found in studies of engineers outside the Civil Service. For example, Gerstl and Hutton remark that external graduates were less "successful" than internal graduates but more "successful" than non-graduates, and conclude that "the most important single factor therefore for determining success in later life is a university education".¹ Similarly, in McFarlane's sample 69% of the "least successful" were non-graduates compared with 33% of the "very successful", while 31% of the "least successful" were graduates compared with 67% of the "very successful".²

University

Table 7.34 compares the university attended by graduate engineers inside and outside the Civil Service and also sets out the data for the few graduate architects and surveyors. The Welsh and the English provincial universities have supplied the highest proportion of graduates to the works group, closely followed by London University. These two groups of universities together account for two-thirds of those members of the professional works group who have attended full time at university. Oxford and Cambridge (largely Cambridge) have contributed 18% and the Scottish universities 15%. Thus the professional

¹ J. E. Gerstl and S. P. Hutton, *op. cit.*, p. 51.

² B. A. McFarlane, *op. cit.*

Table 7.33. *Engineers in the works group of professional classes: Grade distribution according to year of permanent establishment to the Civil Service and institution of higher education*

Present grade	Established before 1940 or appointed 1940-45			
	University full-time	University part-time and other institutions full or part-time	None	All
	%	%	%	%
Upper grades	87	62	55	70
Lower grades	13	38	45	30
Total	100	100	100	100
(N)	(64)	(16)	(66)	(146)
Present grade	Established after 1945			
	%	%	%	%
Upper grades	32	27	13	18
Lower grades	68	73	87	82
Total	100	100	100	100
(N)	(44)	(11)	(126)	(181)

Table 7.34: *Graduates¹ in the works group of professional classes, university teachers of applied science,² graduate mechanical engineers,³ and U.K. male undergraduates 1938/9 and 1961/2⁴: University attended*

University	Works group of professional classes					University teachers of applied science ²	Graduate mechanical engineers ³	U.K. male undergraduates ⁴	
	Architects and surveyors		Engineers		All			1938/9	1961/2
	Upper grades	Lower grades	Upper grades	Lower grades					
	%	%	%	%	%	%	%	%	%
Oxford	6 } 41	— } 33	3 } 14	— } 11	— } 18	— } 7	— } 16	— } 22	— } 14
Cambridge	35	33	11	11	31	21	35	26	19
London	12	33	28	33					
Welsh and English provincial	29	25	36	44	36	54	36	32	50
Scottish	18	8	21	16	15	18	10	20	17
Irish and foreign	12	—	6	5	4	—	3		
Total	*	*	*	*	*	100	100	100	100
(N)	(17)	(12)	(70)	(38)	(137)	(179)	(387)	(X)	(X)

¹ To obtain a more accurate comparison, staff who attended "other" institutions of higher education have been excluded.

² A. H. Halsey and M. Trow, *op.cit.*

³ J. E. Gerstl and S. P. Hutton, *op.cit.*, p. 45.

⁴ *Report of the Committee on Higher Education (Robbins Report)* Appendix Two (A), p. 18.

* Totals add up to over 100 because a few members attended more than one university for their first degree.

works group, like the scientific officer class, is to be contrasted with the legal and administrative classes in that the heavy Oxford and Cambridge contribution to the latter is replaced by a fairly evenly divided contribution from London and the provincial and Welsh universities.

However, within the class there are differences. Cambridge and Scottish graduates are relatively more common¹ in the upper than in the lower grades and this, as we shall see below, reflects recent trends in recruitment rather than different patterns of "career success". The small number of graduate architects and surveyors is made up of relatively more graduates from Cambridge than is the case among the graduate engineers.

The distribution of universities attended by graduate engineers in the Civil Service fairly closely resembles that of graduate mechanical engineers in the country at large although the contribution of the Scottish universities is greater to the former than to the latter. Compared with university teachers of applied science the Civil Service recruits more engineering graduates from Cambridge and London and relatively fewer from the Welsh and provincial universities.² It takes fewer than industry from Oxford and Cambridge, however, according to Clements' study.³

Our survey does not indicate that attendance at a particular university is of any importance in determining "career success". For example, the higher proportion of Cambridge and Scottish university graduates in the upper grades is mainly due to the larger place occupied by these universities in the total output of graduates before the war than in the post-war years. However, by contrast, Gerstl and Hutton found a strong correlation between "success" and previous attendance at Oxford and Cambridge among their sample of mechanical engineering graduates with an honours degree. Among these honours graduates the university attended was more important than the class of degree. Thus Oxford and Cambridge seconds and thirds were more commonly "successful" than London or provincial university firsts and upper seconds.

Details of the subjects graduate members studied for their university first degrees are shown in Table 7.35. Most of the graduate architects and surveyors studied architecture, forestry, agriculture or veterinary science while almost every graduate engineer read one of the engineering specialisms—civil engineering accounting for the majority followed by electrical and mechanical engineering. A small minority read the natural sciences, usually either mathematics or physics.

The fact that practically no engineers in the British Civil Service have any education in arts or social studies subjects as part of their background contrasts with the experience of members of the Corps de Ponts et Chaussées in the French Civil Service who have typically studied administrative law and economics. It also contrasts with mechanical engineering graduates in general. According to Gerstl and Hutton 41% of graduate mechanical engineers have included a non-technical or non-scientific subject as at least part of their course, and the

¹ The difference is not statistically significant however, for the engineers.

² This is less true however, if compared with the earlier sample of applied science university teachers in 1961/62 in *Report of the Committee on Higher Education (Robbins Report)* Appendix Three, p. 36.

³ *Op. cit.*, p. 180. Twenty per cent of his sample of 332 works (including works service and technical) managers attended Oxford or Cambridge university.

Table 7.35: Works group of professional classes: Main subject(s) studied for 1st university first degree

Subject	Architects and surveyors		Engineers		All
	Upper grades	Lower grades	Upper grades	Lower grades	
	%	%	%	%	%
Civil engineering	—	—	67	62	X
Electrical engineering	—	—	36	27	X
Mechanical engineering	—	—	30	22	X
Other engineering	—	—	3	4	X
Architecture	53	38	—	—	X
Total applied sciences	53	38	95	94	82
Total natural sciences	5	—	16	13	11
Other natural and applied sciences	21	8	2	4	} 16
Agriculture, forestry and veterinary science	21	54	—	—	
Total arts/humanities	11	—	—	2	2
Total social sciences	—	15	1	2	4
(N) ¹	(19)	(13)	(83)	(52)	(167)

¹ Totals add up to over 100 because the studies of some members were equally divided over more than one subject or discipline.

great majority have studied a modern language, economics or industrial administration at university.¹

Class of degree

Of the five classes of degree distinguished in Table 7.36 those most commonly found among graduate members of the professional works group are thirds, fourths and pass degrees. Nearly a quarter have undivided seconds and one in eight a first. Within the class there is a difference in the standard of degrees held by members of the upper and lower grades, the former more commonly possessing firsts and upper seconds² than the latter. This difference is in line with the general difference in educational attainment between the upper and the lower grades which we have already noticed in this chapter, and is related to the better promotion chances for those with first and upper second class degrees. (Table 7.37).

Compared with other graduate Civil Service classes the works group engineers resemble the legal class in their distribution of classes of degree. Their standards are lower than among the graduate scientific officer and administrative classes. Compared with both applied science graduates in 1959 and with graduate mechanical engineers, the degree standard of upper engineers is relatively high but that of engineers in the lower grades relatively low.³ This last point must

¹ *Op. cit.*, p. 59. The difference will be somewhat exaggerated because Civil Service graduate engineers are asked to name only the main subjects they studied at university.

² The differences in the proportions possessing upper seconds are not statistically significant at the 10% level.

³ Certainly far lower than university teachers of applied science of whom in 1961/62 56% had first class degrees (*Report of the Committee on Higher Education (Robbins Report)* Appendix Three, p. 20). Using class of degree as criterion the gap in quality between Civil Service engineers and their professional colleagues in British universities is far greater than the difference in the case of the scientific officer class.

Table 7.36: Works group of professional classes, graduates of U.K. applied science faculties, 1959,¹ graduate mechanical engineers²: Class of 1st university first degree

Class of degree	Works group of professional classes				All	Graduates of U.K. applied science faculties 1959 ¹	Graduate mechanical engineers ²
	Architects and surveyors		Engineers				
	Upper grades	Lower grades	Upper grades	Lower grades			
	%	%	%	%	%	%	%
First	21	—	29	12	12	12	26
Upper second	11	8	8	6	6	20	4
Undivided second	16	15	28	25	23	} 22	24
Lower second	5	—	4	2	2		1
Other	47	77	31	56	56	45	45
Total	100	100	100	100	100	100	100
(N)	(19)	(13)	(83)	(52)	(167)	(2,350)	(387)

¹ Report of the Committee on Higher Education (Robbins Report) Appendix Two (A), p. 144. The graduates of six universities only (Oxford, London, Manchester, Bristol, Wales and Glasgow) were surveyed.

² J. E. Gerstl and S. P. Hutton, *op. cit.*, p. 47.

be emphasised because only 8% of the Civil Service sample is in the upper grades; thus the general standard of educational attainment among engineers in the Civil Service is relatively low. It should, however, be added that the class of degree of the lower engineers is more in line with that of natural science and applied science graduates in 1936, 55% of whom had thirds or lower classes of degree and 16% of whom had firsts.¹

It is clear from Table 7.37 that the better the class of degree a graduate engineer in the Civil Service holds the more likely he is to be promoted beyond the career grade. Thus for graduates established before the war, those with firsts and upper seconds are more frequently found in the upper grades than those with undivided and lower seconds, and the latter, in turn, are more "successful" than those with thirds, fourths and pass degrees. Moreover, the graduates have fared better than non-graduates. And, as is shown in Table 7.38, graduates with a high class of degree are slightly younger than average for their sample group. This is more indirect evidence in the case of the upper grades of the importance of a high class of degree in "career success".

OCCUPATIONAL EXPERIENCE

Previous field of employment

The employment experience of members of the professional works group is set out in Table 7.39 where it may be seen that only 7% joined the Civil Service straight from school. Of all the classes in this survey this is the lowest

¹ Report of the Committee on Higher Education (Robbins Report) Appendix Two (A), p. 144.

Table 7.37: Engineers in the works group of professional classes: Grade distribution according to year of establishment to the Civil Service and to class of 1st university first degree

Present grade	Established before 1940 or appointed 1940-45				All
	First or upper second	Undivided or lower second	Other classes of degree	Non-graduates ¹	
	%	%	%	%	%
Upper grades	100	84	66	55	70
Lower grades	—	16	34	45	30
Total	100	100	100	100	100
(N)	(26)	(25)	(29)	(66)	(146)

Present grade	Established after 1945				All
	First or upper second	Undivided or lower second	Other classes of degree	Non-graduates ¹	
	%	%	%	%	%
Upper grades	36	33	27	13	18
Lower grades	64	67	73	87	82
Total	100	100	100	100	100
(N)	(14)	(15)	(26)	(126)	(181)

¹ Defined here as staff who did not attend an institution of higher education.

Table 7.38: Graduate engineers in the works group of professional classes: Class of 1st university first degree by age

Age	Engineers							
	Upper grades				Lower grades			
	First or upper second	Undivided or lower second	Other classes of degree	All	First or upper second	Undivided or lower second	Other classes of degree	All
	%	%	%	%	%	%	%	%
Under 33	—	—	—	—	11	7	—	4
33-50	13	12	4	10	67	64	41	52
Over 50	87	88	96	90	22	29	59	44
Total	100	100	100	100	100	100	100	100
(N)	(31)	(26)	(26)	(83)	(9)	(14)	(29)	(52)

proportion of "career civil servants". Over half of the 93% who have worked elsewhere have held posts in industry or commerce and about a third in local government. The latter are now more commonly in the upper than in the lower grades while "career civil servants" or those with industrial or commercial experience are more commonly found in the lower grades whether architects and surveyors or engineers. The only other class which in any way resembles the professional works group in the extent of pre-recruitment employment is the legal class.

It appears from Table 7.40 that pre-entry employment involves slightly better promotion prospects, particularly for those who have worked in local government or education. McFarlane came to the same conclusion for his

Table 7.39: Works group of professional classes: Field of employment before joining the Civil Service

Field of employment	Architects and surveyors		Engineers		All
	Upper grades	Lower grades	Upper grades	Lower grades	
	%	%	%	%	%
None	4	6	6	9	7
Industry	23 } 25	30 } 40	70 } 70	73 } 74	53
Commerce	3	12	2	6	
Education	5	1	7	4	3
Local government	41	26	39	29	30
Armed forces and local uniformed services	1	6	5	5	6
Communications	2	1	2	2	34
Social services	—	—	—	1	
Agriculture, forestry, fisheries	5 } 63	11 } 53	2 } 7	— } 9	
Other	58	43	5	8	
(N) ¹	(138)	(201)	(135)	(192)	(666)

¹ Totals add up to over 100 because some members were previously employed in more than one field.

Table 7.40: Works group of professional classes: Grade distribution according to year of permanent establishment to the Civil Service and field of employment before joining the Civil Service

Present grade	Established before 1940 or appointed 1940-45					
	Previously employed in					
	None	Industry or commerce	Local government	Education	All other fields	All
	%	%	%	%	%	%
Upper grades	50	62	81	78	59	63
Lower grades	50	38	19	22	41	37
Total	100	100	100	100	100	100
(N) ¹	(24)	(140)	(72)	(9)	(87)	(270)
Present grade	Established after 1945					
	%	%	%	%	%	%
	Upper grades	10	20	35	50	34
Lower grades	90	80	65	50	66	74
Total	100	100	100	100	100	100
(N) ¹	(21)	(211)	(147)	(18)	(151)	(396)

¹ Total numbers add up to over 270 for pre 1946 recruits, and to over 396 for post-1945 recruits, because some members were previously employed in more than one field.

Table 7.41: Works group of professional classes: Field of employment before joining the Civil Service by highest educational qualification obtained before entry into the Civil Service

Highest qualification before entry	Previously employed in						
	None	Industry or commerce	Local government	Education	Armed forces and local uniformed services	Other	All
	%	%	%	%	%	%	%
University first or higher degree	21	18	17	28	3	14	18
Membership of a professional institution or a university diploma	29	49	72	69	81	65	53
"A" level(s) or Higher National Certificate/Diploma	1	10	4	1	—	3	7
"O" level(s), Ordinary National Certificate and all other qualifications	32	16	7	1	12	10	15
No qualification	16	6	1	—	4	8	7
Total	100	100	100	100	100	100	100
(N) ¹	(45)	(351)	(219)	(27)	(31)	(221)	(666)

¹ Total numbers add up to over 666 because some members were previously employed in more than one field.

sample of chartered engineers.¹ He found that one-quarter of the "very successful" had worked for one type of establishment only and three-quarters for two or more, whereas over half of the "least successful" had worked for only one type of establishment. Occupational mobility or "spiralling" appears to be an important element in "career success".

The correlation we have noted between type of pre-entry employment and membership of the upper grades needs further exploration. Is it, for example, that local government and education are the occupational background of the older and longer serving recruits? In fact this is not the explanation. No group of staff (with one exception) classified according to previous types of employment, is consistently older or younger, or more or less senior than average. The one exception, members previously in local government, are disproportionately *recent* rather than senior recruits. So the explanation for the better promotion prospects of those who previously worked in local government or education is that they are the best qualified (Table 7.41): only 2% of those from education entered the Civil Service without a university degree or professional qualification compared with half of the class as a whole. "Career civil servants" have the poorest qualifications and those with previous experience in industry and commerce hold an intermediate position, though much nearer to those recruited from the field of education.

Educational qualifications after entry

Details of post-entry qualifications are set out in Table 7.42. Between a quarter and a half of the class have gained some type of qualification during service—in most cases corporate membership of a professional organisation.

¹ *Op. cit.*, p. 236.

Table 7.42: Works group of professional classes: Total and highest educational qualifications obtained after entry into the Civil Service

Qualifications after entry	Architects and surveyors				Engineers				All
	Upper grades		Lower grades		Upper grades		Lower grades		
	Total quals.	Highest qual.	Total quals.	Highest qual.	Total quals.	Highest qual.	Total quals.	Highest qual.	
	%	%	%	%	%	%	%	%	%
University higher degree	1	}	1	}	5	}	1	}	2
University first degree	—		—		2		3		
Membership of a professional institution, univ. diploma	21	19	32	31	42	36	53	49	37
Higher National Certificate/ Diploma	—	}	1	}	2	}	10	}	—
Higher School Certificate	—		—		1		1		
"A" level(s)	—		—		1		1		
"O" level(s)	—		—		1		2		
Ordinary National Certificate/ Diploma	—	}	1	}	1	}	4	}	3
City and Guilds Certificate	1		—		—		—		
R.S.A. examinations	—		—		2		4		
Industrial apprenticeship	—	}	—	}	1	}	1	}	
Other qualifications	4		4		—		2		
No qualification	75	}	64	}	4	}	4	}	57
Total*	* 100		* 100		* 100		* 100		
(N)	(138)	(138)	(201)	(201)	(135)	(135)	(192)	(192)	(666)

* The totals add up to over 100 because some members obtained more than one type of qualification after entry into the Civil Service.

It is impressive that 43% of the professional works group as a whole, and over half of the lower engineers in particular, should have obtained a further qualification during their service. The technical Civil Service classes in general have a large proportion of members who have gained qualifications after joining the Civil Service. In the case of the works group this is partly explained by the deliberate official provision made for graduate engineers in the cadet grade to train for professional engineering qualifications. But there is an even more significant group amounting to about a quarter of the lower engineers who have not only obtained professional qualifications but who had also previously gained sub-professional qualifications during their Civil Service career. In other words, about a quarter of the professional works group have become professionally qualified by working their way up from the bottom of the educational and professional ladder during their employment in the Civil Service. For this group promotion has more commonly taken the form of movement out of one of the supporting classes into the professional works group than movement from the lower to the upper grades within the works group.

Moreover, as Tables 7.43 and 7.44 show, not only do university and professional qualifications gained after entry appear to serve many members of supporting or other classes as a passport into the professional works group; they also enable those with a less "privileged" social and educational background to find a new way into the class. For example, 60% of those with post-entry university qualifications and 52% of those with post-entry professional qualifications are working class in background (social classes III to V) compared with 39% of the class as a whole. Forty-five per cent of members with university qualifications and nearly two-thirds of those with professional qualifications

Table 7.43: Works group of professional classes: Highest educational qualification obtained after entry into the Civil Service by social class origins (father's occupation)

Father's occupation	University first or higher degree	Membership of a professional institution	Other qualifications	No qualification	All ¹
	%	%	%	%	%
I Higher professional and managerial	24	9	21	20	16
II Intermediate professional and managerial	17	38	43	47	43
III (i) Skilled non-manual	35	9	15	9	10
(ii) Skilled manual	13	36	12	18	24
IV and V Semi and unskilled	12	7	9	4	5
Other	—	2	—	2	2
Total	100	100	100	100	100
(N)	(19)	(231)	(28)	(387)	(666)

¹ Includes members whose highest post-entry qualification was H.N.C., H.N.D., H.S.C., O.N.C., or O.N.D. and of whom there were too few for separate analysis.

gained whilst working in the Civil Service had only sub-professional or sub-university qualifications before joining compared with 29% of the class as a whole.

Of all who gained some sort of qualification after joining the Civil Service, it is those whose highest achievement was membership of a professional body who are the most interesting. They not only form the majority of those with post-entry qualifications but also a group within the class who have risen into it from subordinate classes and/or a relatively less advanced social and educational background.

Class to class mobility

Seventy per cent of the class are "direct entrants" in that they first entered the Civil Service as members of the professional works group. Over a quarter are "promotees" who started their Civil Service career in another class where graduate recruitment was not normal (mainly the technical works or draughtsman class). Only 3% of the class are "transfers" staff who began in the Civil Service in other classes where recruitment of graduates or professionally qualified staff was usual (Table 7.45).

The professional works group has about the same proportion of promotees as the administrative class (29%) and more than the scientific officer class (19%). Within the class there are over twice as many promotees among the lower than the upper grades, the proportion reaching one-third for the lower engineers. Promotion from supporting classes serves to introduce staff with a wider social background, a poorer education but longer experience than the

Table 7.44: Works group of professional classes: Highest educational qualification obtained after entry into the Civil Service by highest educational qualification obtained before entry into the Civil Service and by type of full-time school last attended

Highest qualification before entry	University first or higher degree	Membership of a professional institution	Other qualifications	No qualification	All ¹
	%	%	%	%	%
University higher and first degree	55	18	14	16	18
Membership of a professional institution and university diploma	—	19	58	78	53
Higher National Certificate/Diploma, Higher School Certificate	22	16	—	1	7
"O" level(s), Ordinary National Certificate, other qualifications	13	30	25	5	15
No qualification	10	17	4	1	7
Total	100	100	100	100	100
Type of school					
	%	%	%	%	%
Secondary modern	2	13	10	6	9
Technical	1	26	19	16	20
L.E.A. grammar	48	32	21	33	33
Direct grant	11	11	12	14	13
Public school and other fee paying	38	15	37	27	23
Other	—	3	—	3	3
Total	100	100	100	100	100
(N)	(19)	(231)	(28)	(387)	(666)

¹ Includes members where highest post-entry qualification was an H.N.C., H.N.D., H.S.C., O.N.C., or O.N.D., of whom there were too few for separate analysis.

typical direct entrant (Tables 7.46 to 7.48). Sixty-two per cent of the promotees are over fifty as against 50% of the direct entrants, and three-quarters were established in the Civil Service before 1950 compared with half the direct entrants. Forty per cent of the promotees are the sons of skilled manual workers and about the same proportion are middle class (social class I or II) in origins. This compares with only 18% of the direct entrants and 24% of the whole class whose fathers were in social class III(i), and with 65% of the direct entrants who are middle class by paternal occupation. Promotees similarly have poorer educational qualifications. Sixty per cent had only "O" level(s) or below on joining the Civil Service (compared with 7% of the direct entrants) and just over a quarter possessed university or professional qualifications on entry as against

Table 7.45: Works group of professional classes: Class on entry into the Civil Service

Class on entry	Architects and surveyors		Engineers		All
	Upper grades	Lower grades	Upper grades	Lower grades	
	%	%	%	%	%
Works group of professional classes ("direct entrants")	85	73	83	66	70
Other classes where graduate entry is normal ("transfers")	4	—	4	—	3
All other classes ² ("promotees")	11	27	13	34	27
Total	100	100	100	100	100
(N) ¹	(160)	(215)	(159)	(215)	(666)

¹ The only data available for the separate sample groups relates to the *original* samples from which they were taken; figures for the whole class relate to the actual sample groups.

² Largely the technical works and draughtsman classes.

Table 7.46: Direct entrants and promotees in the works group of professional classes, and the technical works and draughtsman classes: Age and year of permanent establishment to the Civil Service

Age	Works group of professional classes ¹			Technical works class	Draughtsman class
	Direct entrants	Promotees	All ²		
	%	%	%	%	%
Under 33	2	2	2	6	20
33-50	48	36	45	35	25
Over 50	50	62	53	59	56
Total	100	100	100	100	100
Year of establishment					
	%	%	%	%	%
Before 1940	11	19	13	3	5
(Appointed) 1940-45	12	23	15	16	14
1946-50	27	33	28	25	17
1951-55	16	16	16	29	44
1956-60	14	8	13		
1961 and after	20	1	15		
Total	100	100	100	100	100
(N)	(495)	(145)	(666)	(206)	(196)

¹ The definition of a transfer in Tables 7.46-7.48, but not in Table 7.45, includes direct entrants to the professional works group who have moved between a post in engineering and a post in architecture, surveying etc. Hence the proportion of transfers in the professional works group appears to be smaller in Table 7.45 than Tables 7.46-7.48.

² Includes "transfers" who were too few for separate analysis. See footnote 1.

Table 7.47: Direct entrants and promotees in the works group of professional classes, technical works and draughtsman classes: Social class origin (father's occupation) and place of birth

Father's occupation	Works group of professional classes ¹			Technical works class	Draughtsman class
	Direct entrants	Promotees	All ²		
	%	%	%	%	%
I Higher professional and managerial	17	14	16	5	2
II Intermediate professional and managerial	48	29	43	19	23
III (i) Skilled non-manual	10	8	10	6	10
(ii) Skilled manual	18	40	24	55	51
IV and V Semi and unskilled	5	6	5	12	10
Other	2	2	2	3	4
Total	100	100	100	100	100
Place of birth					
	%	%	%	%	%
North	24	14	21	20	19
London and South East	34	47	38	26	27
Rest of South and Midlands	18	20	17	36	40
Wales, Scotland and N. Ireland	18	16	19	14	11
Abroad	6	4	5	3	3
Total	100	100	100	100	100
(N)	(495)	(145)	(666)	(206)	(196)

^{1,2} See footnotes to Table 7.46.

87% of the direct entrants. Again, promotees tend to have been educated in the public sector and in non-selective schools compared with the class as a whole.

The initial difference between the qualifications of direct entrants and promotees on joining the Civil Service is lessened by the remarkable proportion of promotees who obtain some qualification *after* entry. Seventy-three per cent gained a qualification whilst working for the Civil Service (and presumably a higher proportion *attempted* one), mostly from a professional body or university. Less than half as many of the direct entrants (32%) gained any post-entry qualification.

A higher proportion of promotees were born in London and the South East (47%) compared with the whole class (38%) and direct entrants (34%), and relatively fewer were born in the North. The likely reason has been suggested on page 12.

If the promotees form an older, longer serving, worse educated and lower social element within the professional works group, especially in its lower grades, they are nevertheless something of a social and educational elite for the classes which they left on promotion. For example, 43% have middle class

Table 7.48: Direct entrants and promotees in the works group of professional classes; technical works and draughtsman classes: Highest educational qualification obtained before, and obtained after, entry into the Civil Service, and type of full-time school last attended

Highest qualification before entry	Works group of professional classes ¹			Technical works class	Draughtsman class
	Direct entrants	Promotees	All ²		
	%	%	%	%	%
University degree	21	6	18	1	—
Membership of a professional institution, univ. diploma, dip. tech.	66	21	53	5	5
Higher National Certificate/Diploma "A" level(s) and Higher School Certificate	5	11	7	7	8
"O" level(s)	3	20	8	12	29
All other qualifications	3	20	7	45	26
No qualification	2	22	7	29	33
Total	100	100	100	100	100
Highest qualification after entry					
	%	%	%	%	%
University degree, university diploma, dip. tech., membership of a professional institution	29	69	39	10	8
Higher-Ordinary National Certificate/Diploma and Higher School Certificate	—	1	—	11	21
All other qualifications	4	4	3	27	14
No qualification	68	27	57	52	56
Total	100	100	100	100	100
Type of school					
	%	%	%	%	%
Secondary modern	8	12	9	35	22
Technical	13	34	20	28	26
L.E.A. grammar	35	25	33	25	37
Direct grant	14	11	13	4	5
Public school and other fee paying	27	16	23	4	6
Schools abroad and other	3	2	3	4	4
Total	100	100	100	100	100
(N)	(495)	(145)	(666)	(206)	(196)

^{1,2} See footnotes to Table 7.46.

backgrounds (social classes I or II) compared with about a quarter of the technical works and draughtsman classes. Over a quarter of the promotees were educated in the private sector (including direct grant schools) compared with 8% to 11% of their two main classes of origin. And correspondingly they have superior pre-entry qualifications. However, it is clear from Table 7.48 that the

most important educational difference between promotees and members of the technical works and draughtsman classes is in the acquirement of post-entry qualifications: 73% of the promotees gained some kind of qualification whilst working for the Civil Service compared with under half of their ex-colleagues, and a particularly wide margin separates the proportions who took a degree or became members of a professional institution after joining the Civil Service, the figures being 69% of the promotees and 8% to 10% of the technical works and draughtsman classes. If any one factor marks promotees off both from their present and past colleagues it is the attainment of university and professional qualifications after entry into the Civil Service. It is this that appears to be the passport to promotion into the professional works group even though a few of the promotees might have gained these qualifications *after* their promotion. Table 7.49 also suggests that it is the better educated and more middle class promotees who tend to advance fastest or to have been promoted the most recently (after the shortest service elsewhere in the Civil Service). Thus 53% of the promotees first established in the Civil Service in the 1950's are middle class in origin compared with 32% of the promotees established before the war; and only 37% attended L.E.A. secondary modern or technical schools (or their past equivalents) among those established 1951-60, as against 61% of those established before 1940. Promotees first appointed to the Civil Service during the war also tend to be socially and educationally "superior" for the group of promotees as a whole. Again, the explanation lies in the tendency for the best qualified to be the most recently established promotees, in the light of the known relation between high qualifications and a "privileged" social and educational background. The more recent the period of establishment of promotees the more likely they were to possess a university or professional qualification on entry into the Civil Service, and the less likely they were to be completely unqualified.

PROFESSIONAL AND LEISURE ACTIVITY

Membership of voluntary associations

Active and nominal membership of organisations among the professional works group is compared with that of the national adult population in Table 7.50. The great majority (four out of five) belong to a professional body, and three-fifths to some other work-connected association (usually one of the staff associations) and about half are members of both. Some two-thirds claim to belong nominally to a club devoted to leisure or social pursuits and about a quarter to church-sponsored or other religious organisations, or to civic groups. Of all the Civil Service classes this group appears to have the highest proportion who belong to work connected associations and this proportion is three times as great as that for the national adult population. Apart from this, however, membership of outside organisations seems to be fairly similar to that of other Civil Service classes except for a very high membership of religious bodies (which is also three times that of the national adult population).

About half of the class take part in the running of an organisation to which they belong; one in five thus participates in work-connected organisations, and one in three in social and leisure, or religious bodies.

There are some differences worth noting within the professional works group. Members of the upper grades are relatively more active in organisations generally; in the lower grades it is more common for members to be nominally and

Table 7.49: Promotees in the works group of professional classes: Year of permanent establishment to the Civil Service by social class origins (father's occupation), highest educational qualification obtained before entry into the Civil Service, and type of full-time school last attended

Father's occupation	Established			
	Before 1940	(Appointed) 1940-45	1946-50	1951-60
	%	%	%	%
I and II Higher and intermediate professional and managerial	32	47	38	53
III(i) Skilled non-manual	10	1	16	4
III(ii), IV and V, Skilled manual, semi and unskilled	48	52	46	43
Other	9	—	—	—
Total	100	100	100	100
Highest qualification before entry				
	%	%	%	%
University degree, dip. tech., univ. diploma, membership of a professional institution	11	24	29	37
Higher National Certificate/Diploma, Higher School Certificate	15	8	7	17
"O" level(s)	20	32	13	19
All other qualifications	14	14	28	18
No qualification	40	22	22	8
Total	100	100	100	100
Type of school				
	%	%	%	%
Secondary modern	20	10	14	4
Technical	41	29	34	33
L.E.A. grammar	25	25	22	33
Direct grant	6	12	13	7
Public school and other fee paying	2	24	13	23
Schools abroad and other	5	—	3	—
Total	100	100	100	100
(N)	(41)	(19)	(23)	(21)

actively involved in religious associations and to belong nominally to organisations concerned with education and training. Architects and surveyors tend to be more active than engineers especially in professional organisations, social and leisure clubs and religious bodies. Engineers are more likely to be nominal members of non-professional work-connected associations. In work-connected organisations members of the lower grades tend to take an active part in staff associations and members of the upper grades in external professional bodies. It also appears from comparison with Gerstl and Hutton's sample of mechanical engineers that the professional works group is exceptional for engineers in its membership of outside organisations. Gerstl and Hutton conclude from their study that mechanical engineers manifest considerable convergence of leisure

Table 7.50: Works group of professional classes, and local government electors¹: Nominal and active membership of organisations and voluntary associations

Type of organisation	Architects and surveyors				Engineers				All			Local government electors ¹
	Upper grades		Lower grades		Upper grades		Lower grades		Nominal membership	Active membership	Nominal membership	
	Nominal membership	Active membership	Nominal membership	Active membership	Nominal membership	Active membership	Nominal membership	Active membership				
None	% 2	% 45	% 3	% 48	% 4	% 49	% 2	% 51	% 3	% 49	% 39	
Professional bodies connected with work	92 } 94 58 }	30 } 37 14 }	81 } 88 56 }	8 } 20 15 }	88 } 92 75 }	26 } 34 14 }	83 } 87 64 }	6 } 24 19 }	81 } 87 59 }	8 } 22 16 }	27 }	
Other associations connected with work												
Clubs and societies connected with social and leisure activities	70	16	64	21	67	13	72	16	68	19	17	
Religious and Church-connected associations	22	14	27	17	18	11	22	15	27		10	
Civic groups	25	7	26	6	19	5	25	6	25		7	
Associations connected with education and training	6	5	16	4	10	5	15	7			5	
Public bodies and committees	6	2	—	—	4	2	3	2			1	
Other associations connected with welfare	4	4	5	3	6	1	4	3	33	17	3	
Other associations, societies, etc.	13	6	20	8	21	3	17	5				
(N) ²	(138)	(138)	(201)	(201)	(135)	(135)	(192)	(192)	(666)	(666)	(X)	

¹ M. Horton, *op. cit.*² Totals add up to over 100 because some members are nominal or active members of more than one type of outside organisation, club, etc.

Table 7.51: Works group of professional classes, corporate members of R.I.B.A.¹ mechanical engineers² and U.K. higher and intermediate professional and managerial workers, with a T.E.A. of 16-18³: Readership of daily and Sunday newspapers

Daily newspaper	Works group of professional classes					Corporate members of R.I.B.A. ¹	Mechanical engineers ²	U.K. social classes I and II, T.E.A. 16-18 ³
	Architects and surveyors		Engineers		All			
	Upper grades	Lower grades	Upper grades	Lower grades				
	%	%	%	%	%	%	%	%
Times	34	12	27	10	13	13	5	11
Guardian	19	10	10	9	11	23	13	9
Daily Telegraph	47	53	69	53	54	34	39	39
Daily Express	19	27	11	21		20	24	33
Daily Mail	16	20	19	16		20	16	26
Sun		1	2	2		1	1 ⁵	2
Daily Mirror	2	5	3	7		2	6	9
Daily Sketch	1	2	1	2		1	4	3
None	6	4	6	2	5	3	X	X
Sunday newspaper								
	%	%	%	%	%	%	%	%
Sunday Times	49	34	50	30	35	48	X	35
Observer	36	22	23	24	23	45	X	17
Sunday Telegraph	11	21	26	21	21	13	X	22
Sunday Express	44	51	46	40	45	38	X	55
News of the World		4	1	3		3	X	11
Sunday Mirror		5	2	5		4	X	13
Sunday Citizen	1	1	1	1		3	X	1
People	1	5		6		1	X	13
None	7	7	6	11	8	2	X	X
(N) ⁴	(138)	(201)	(135)	(192)	(666)	(1360)	(977)	(895)

¹ M. Abrams, *Architects*, pp. 23-25.

² J. E. Gerstl and S. P. Hutton, *op.cit.*, p. 147.

³ M. Abrams, *Education, social class and reading of newspapers and magazines*, pp. 12, 18.

⁴ Totals add up to over 100 because some members read more than one daily or Sunday newspaper.

⁵ Figures refer to the now defunct *Daily Herald*; little difference in its readership from the *Sun* is likely.

and work roles, their leisure activity being work-oriented (e.g. reading engineering journals, mechanical and technical hobbies, etc.).¹ This appears also to be true for the Civil Service engineers, perhaps to an even greater extent.

Readership of daily and weekly press

Regular readership of daily and Sunday newspapers by the professional works group is compared in Table 7.51 with architects, mechanical engineers and the U.K. adult population of a similar social class and educational background.

The *Daily Telegraph* is the most popular of the daily newspapers, being read by more than half the class. Next comes the *Times* among the upper grades and the *Daily Express* among the lower grades. Nearly three-quarters read at least one of the serious daily newspapers (*Times*, *Guardian*, *Daily Telegraph*) and only 6% read either of the daily tabloids (*Daily Mirror* and *Daily Sketch*). In the class as a whole the *Sunday Express* is the most popular of the Sunday

¹ *Op. cit.*, Chapter 9.

newspapers closely followed by the *Sunday Times* which is in fact the most popular among the upper grades. Over half the class as a whole reads at least one of the two serious Sunday newspapers (*Observer* and *Sunday Times*) and again only 6% read one of the four Sunday tabloids.

The newspaper reading habits of the professional works group are closer to those of an intermediate Civil Service class such as the experimental officer or executive class, than to the other three higher Civil Service classes. This is especially true of the lower grades (which make up 92% of the class) where the *Guardian* and the *Times* are relatively unpopular and where the *Daily Telegraph* and *Sunday Express* are more typically read. But compared with the architectural and engineering professions at large, the professional works group have fairly orthodox tastes in newspapers. The architects and surveyors in the upper grades more commonly read the *Times* than do architects in general. It may also be noticed that Civil Service architects and surveyors have a relative preference for the more right wing press compared with their colleagues outside the Civil Service. At the same time their counterparts in the lower grades tend to have a lighter taste in newspapers than architects in general.¹ Similar comparisons hold between Civil Service engineers and mechanical engineers outside the Civil Service.

As for other Civil Service classes the professional works group has a slightly more serious taste in newspapers than its social and educational counterparts in the national population. Readers of the daily middlebrow newspapers (the *Daily Express*, *Daily Mail* and *Sun*) and Sunday tabloids (*News of the World*, the *People*, *Sunday Mirror* and *Sunday Citizen*) are particularly under-represented in the works group. As usual, the individual newspaper most over-represented in the Civil Service is the *Daily Telegraph*, read by 54% of the class but by 39% of the national sample.

Comparison between the upper and lower grades within the class indicates that position in the hierarchy, and presumably the different responsibilities and functions that accompany it are associated with choice of newspaper. Seriousness rises towards the top. This pattern is typical for all the higher classes of the Civil Service.

No other table on newspaper reading is published, but it may further be noted that age and education are related to newspaper reading in the professional works group as they have been shown to be in our survey generally. Readership of the *Observer* and the *Guardian* tends to go with youth. Non-readership of daily or Sunday newspapers tends to go with low educational qualifications and the reading of the *Times* and *Sunday Times* with a university background. More generally, those who had received some kind of higher education tend to read not only the serious newspapers but a wider variety of newspapers.

A quarter of the professional works group read one of the listed current affairs journals (Table 7.52). This is the lowest figure among the higher Civil Service classes, being no greater than that of the clerical class, but it is artificially low because of the exclusion of *New Scientist* and other general scientific journals from our list. Members of the upper grades are relatively more likely to read a journal, especially the *Economist*, a journal which was noticed by Gerstl and

¹ This statement is barely statistically significant at the 10% level.

Table 7.52: Works group of professional classes: Readership of weekly periodicals

Periodical	Architects and surveyors		Engineers		All
	Upper grades	Lower grades	Upper grades	Lower grades	
	%	%	%	%	%
None	65	75	72	75	75
Economist	20	9	15	7	8
New Statesman	10	6	6	6	6
Spectator	5	5	7	3	5
New Society	9	1	4	1	1
Statist	—	—	1	1	1
Listener	9	9	3	11	—
Times Educational Supplement	5	6	1	4	—
Times Literary Supplement	2	4	3	6	—
(N) ¹	(138)	(201)	(135)	(192)	(666)

¹ Totals add up to over 100 because a few members read more than one periodical.

Hutton as being associated with the most “successful” of their sample of mechanical engineers.¹

Readership of journals is associated with the reading of particular newspapers, especially the *Times* and the *Guardian*, 45% of whose regular readers also read a journal compared with 25% of the class as a whole.

¹ *Op. cit.*, p. 149.

Chapter VIII

The Technical Works Class

THE CLASS

Function

The technical works, engineering and allied classes act as a link between the works group of professional classes and the industrial grades employed on actual production. The class as a whole and many of its individual members have an exceptionally wide range of duties. For example, in the Ministry of Power a member may be working on problems connected with the construction and operation of power stations (siting, grit omission, etc.). In the Ministry of Agriculture, Fisheries and Food a member can be part of a team responsible for the adequate drainage and irrigation of agricultural areas vulnerable to river and sea flooding. Other staff may be working in a Royal Ordnance factory with partial responsibility for the production of large quantities of mechanisms for ammunition fuses. From this very wide variety of duties it is useful to distinguish between:

- (i) members who assist the professional works group in headquarters offices and design departments, on technical planning, design, advice and research; and
- (ii) members with somewhat less direct supervision from the professional works group, controlling and organising direct labour production, or supervising and inspecting the work of outside companies on contract to the government, and generally working in factories, sites and docks.

Some duties overlap with those performed by the scientific assistant class or the assistant experimental officer grade, despite differences in age, salary and qualifications.¹ Similarly, staff in the upper grades of the technical works class and lower grades of the professional works group are regarded as interchangeable.² The class is complementary to the draughtsman classes in pay and responsibility, one of its primary functions being to translate architectural and engineering drawings into actual production and operation.

Salary, grades and tenure

The tenure and salary range of the class's six grades and the proportion of the class that each constitutes can be seen from Table 8.1. A small proportion are in technical grades A and B. They are mainly concerned with the detailed organisation and inspection of large blocks of production work, and the supervision of contracts on several sites, or for particularly large and complex works. They may also be employed on specialist technical work either in an

¹ *Report of the Management Consultancy Group*, p. 49.

² *Ibid.*, p. 53.

Table 8.1: *Technical works class: Grade by tenure and salary*

	Technical grade A and above	Technical grade B	Technical grade I	Technical grade II	Technical grade III	Technical grade IV	All
% of class ¹	% 3	% 4	% 21	% 34	% 37	% 1	% 100
% permanent ¹	96	93	90	69	46	46	66
Salary ²	£1,951–£3,050	£1,842–£2,096	£1,490–£1,842	£1,283–£1,490	£895 (at 21)–£1,076 (at 26)–£1,283	£668 (at 19)–£854 (at 25)–£1,149	
(N) ²	(555)	(938)	(4,568)	(7,447)	(8,003)	(118)	(21,629)

¹ Calculated from H.M. Treasury, *Introductory Factual Memorandum on the Civil Service*, p. 144.

² Permanent and temporary staff, on 1st April, 1967.

individual post or as head of a small specialist organisation. Over 70% are in the bottom three grades (technical grade IV is now virtually obsolescent) involved in varying degrees of responsibility with inspectoral and supervisory work on building, maintenance or production jobs, or with highly skilled, individual technical work. Technical grade I tend to have managerial functions with immediate control over several officers in the lower grades. Their salary ceiling is £1,842 and this constitutes the top annual income that most members remaining in the class realistically can hope to earn. Because the great majority of members are concentrated in the middle three grades which have only narrow salary ranges, the average annual income of a member (including temporaries) in 1966–67—£1,382—was not markedly lower than the floor of grade I.¹

The technical works class is the most exclusively male of the ten classes surveyed, only 0.2% being women. The proportion reaches 6% for the obsolescent technical grade IV and women, compared with men, are disproportionately employed in the bottom two grades.²

The class had 21,629 members in April, 1967 and just over one third of them were temporaries, a high proportion for any of the Civil Service classes surveyed and surpassed in this respect only by the scientific assistant class (51%). Over half of those in the two bottom grades are temporaries and the number of temporaries only loses significance (is under 10%) in grades I, A and B. Of the 206 men in our sample, 91% were initially appointed to the Civil Service in a temporary capacity. This high proportion is again second only to that of the scientific assistant class (93%) and is in general line with the tendency in the Civil Service for the subordinate and non desk classes to contain the greatest proportion of initially temporary members.

Length of service

All but 3% of the class were first established after the war and over a quarter only since 1960. However, Table 8.2 clearly indicates that members of the technical works class spend an exceptionally long time in a temporary capacity,

¹ *Civil Service Estimates 1967/68*.

² H.M. Treasury, *Civil Service Manpower 1966*, Table 39.

longer certainly than do those members of the administrative and executive classes or of the professional works group who were initially appointed without established tenure. Thus although only 3% were established before the war, 36% of the whole class and 39% of those recruited initially as temporaries were pre-war *appointees*. The last figure compares with 15% for the administrative class and 25% for the executive class.

Method of permanent establishment to the Civil Service

Of the ten classes surveyed, the technical works class contains the lowest proportion of members permanently established to the Civil Service by open competition (10%) and the highest proportion established by nomination¹ (57%) or limited competitions (28%). There are clear differences in the background of members according to their route of establishment, nominees and successful candidates in the open competitions providing the important contrast. Present members of the class established by the open competition tend to be young and recently established (Table 8.3). About a quarter are under thirty-three as against 6% of the whole class; only 5% were established before 1940 or appointed during the war compared with 26% of the technical works class altogether. On the other hand, nominees are slightly older and earlier established than average. The minority established by open competition are also something of a social and educational elite within the class (Table 8.4): 39% are middle class in origin (social classes I and II) compared with only 20% of the nominees and 24% of the whole class. Only 10% were unqualified on entry into the Civil Service, compared with 41% of the nominees and 29% of the class as a whole. Members established through limited competitions are similar in background to nominees but were slightly better qualified on entering the Civil Service. Further evidence that the minority established by the open competition form a young elite is suggested by the fact that about half (48%) were initially established on joining the Civil Service, whereas nearly all the nominees (94%) were not. In fact, nomination usually represents the promotion and establishment of industrial civil servants into the technical works class, as Table 8.21 indicates (although staff over thirty with at least two years in post are sometimes nominated for establishment).

Location

As is typical for a subordinate non-desk class the majority of the technical works class (55%) work outside London in the South of England or the Midlands, but nearly a quarter are posted in outer and inner London. Table 8.5 illustrates the extent of local recruitment. Nearly half of those working in inner London and 43% of members posted in outer London were born in the London and South East area compared with 26% of the whole class. Similarly, nearly half of the minority who are employed in the North were born in the same area as against 20% of all the members. There is evidence of a weaker but similar tendency towards local recruitment amongst members posted in the non-metropolitan South and in Scotland. In general local recruitment is stronger in non-graduate classes where members are not subject to two factors that tend to

¹ Nomination in this context usually means the promotion and establishment of industrial civil servants into the technical works class.

Table 8.2: *Technical works class: Initial tenure on appointment by year of appointment and year of permanent establishment to the Civil Service*

Year	Initially temporary		Initially permanent	All (whatever initial tenure)	
	Appointed	Established	Appointed and established	Appointed	Established
	%	%	%	%	%
1920-29	8	} 10	6	36	1 2
1930-39	31				
1940-45	18	—	—	16	—
1946-49	16	} 90	94	48	41 29 28
1950-59	21				
1960-66	5				
Total	100	100	100	100	100
(N)	(188)	(188)	(18)	(206)	(206)

Table 8.3: *Technical works class: Method of permanent establishment to the Civil Service by year of permanent establishment to the Civil Service and by age*

Year of establishment	Open competition	Post-war reconstruction competition	Nominations	Limited competition	All ¹
	%	%	%	%	%
Before 1940	5	—	15	2	10
(Appointed) 1940-45	—	38	14	25	16
1946 and after	95	62	71	73	74
Total	100	100	100	100	100
Age					
	%	%	%	%	%
Under 33	24	—	5	—	6
33-50	48	63	30	37	35
Over 50	29	38	65	63	59
Total	100	100	100	100	100
(N)	(21)	(8)	(118)	(57)	(206) ¹
Technical works class	% 10	4	57	28	Total (N) 100 (206)

¹ Includes two members whose method of permanent establishment was unspecified.

increase geographical mobility: living away from home while attending university and taking up graduate jobs. To the extent that there is local recruitment and a geographically unrepresentative distribution of posts, the geographical origins of members of a class are likely to be nationally unrepresentative.

Departmental distribution

The technical works class supports the professional works group and is even more heavily concentrated in the technical departments. Only 4% of them work

Table 8.4: *Technical works class: Method of permanent establishment to the Civil Service by social class origins (father's occupation), and highest educational qualification obtained before entry into the Civil Service*

Father's occupation	Open competition	Post-war reconstruction competition	Nomination	Limited competition	All ¹
I and II Higher and intermediate professional and managerial	%	%	%	%	%
III(i) Skilled non-manual	39	50	20	25	24
III (ii) IV and V, skilled manual, semi and unskilled	—	—	7	9	6
Other	57	38	72	63	67
Total	5	13	2	3	3
	100	100	100	100	100
Highest qualification before entry					
Univ. degree or diploma; membership of a professional institution	%	%	%	%	%
Higher National Certificate, Higher School Certificate	20	—	7	4	6
"O" level(s) and Ordinary National Certificate	—	25	4	12	7
All other qualifications	29	25	13	21	17
No qualification	42	25	36	49	40
Total	10	25	41	14	29
	100	100	100	100	100
(N)	(21)	(8)	(118)	(57)	(206) ¹

¹ Includes two members whose method of permanent establishment was unspecified.

Table 8.5: *Technical works class: Location by place of birth*

Place of birth	Inner London	Outer London	North	Rest of England and Wales, and Scotland	All	
	%	%	%	%	%	
North	30	19	48	12	20	
London and South East	48	43	3	24	26	
Rest of South and Midlands	15	19	38	43	36	
Scotland, Wales and N. Ireland	—	14	10	18	14	
Abroad	7	5	—	3	3	
Total	100	100	100	100	100	
(N)	(27)	(21)	(29)	(129)	(206)	(N)
Technical works class: ¹	% 13	10	14	55	9	(215) ¹

¹ These figures were supplied by the Central Staff Record and include nine members of the original sample of the technical works class whose questionnaires were unusable or not returned.

in other ministries (Table 8.6). The Ministries of Defence (the Navy Department especially), Public Building and Works, and Transport employ the largest numbers.

Table 8.6: Technical works class:
Departmental distribution

Type of department	
	%
Economic	1
Technical	96
Social	1
Other	100
(N)	(206)

Table 8.7: Technical works class:
Age

Age	
	%
26-30	3
31-35	7
36-40	7
41-45	13
46-50	11
51-55	22
56-60	21
61-65	16
Over 65	1
Total	100
(N)	(206)
Average age ¹	51.26 years

¹ H.M. Treasury, *Civil Service Manpower*, 1966, Table 39.

DEMOGRAPHIC COMPOSITION

Age and marital status

The average age of members of the technical works class is fifty-one (Table 8.7) according to figures for the whole population of the class.¹ The median age is above this figure and between fifty-one and fifty-five (Table 8.7): 60% of the class are over fifty and the average age of Grade 1 is forty-three.² This makes it the oldest sample group except for the upper grades of the professional works group. There appear to be two reasons why a class of only middle level responsibility and salary is composed of relatively older men. First, an exceptionally high proportion of posts are filled by promotees—experienced industrial civil servants;³ second, candidates for the class, whatever the method by which they

¹ H.M. Treasury, *Civil Service Manpower*, 1966, Table 39.

² *Ibid.*, Table 40.

³ H.M. Treasury, *Introductory Factual Memorandum on the Civil Service*, p. 145.

Table 8.8: *Technical works class: Marital status; and with Great Britain, male population¹: Age by marital status*

Marital status	Technical works class			Great Britain, male population ¹	
	All	33-50	Over 50	33-49	50-65
	%	%	%	%	%
Single	5	6	5	11	8
Married	91	92	90	87	87
Widowed/separated/divorced	4	3	5	2	5
Total	100	100	100	100	100
(N)	(206) ²	(72)	(122)		

¹ Calculated from figures on p. 2,3 of the *Sample Census 1966, Great Britain, Summary Tables*.

² Including 14 members who were under 33.

apply, must be normally at least twenty-five. Despite the recent introduction of trainee-apprentice schemes by some departments only 3% of the class are thirty or under.

The age structure of the class explains the small proportion of single men (only 5%); they appear to be confirmed bachelors and are not younger than average for the class. As for all other civil servants, members of the technical works class are more likely to be married than men of the same age group amongst the population at large (Table 8.8).

SOCIAL BACKGROUND

Geographical origins

The geographical origins of the class and the geographical distribution of the United Kingdom population at the two census dates nearest to the average year of birth of members are set out in Table 8.9. Only a third of the class were born either in the North or in Wales, Scotland or Northern Ireland; a quarter were born in the Greater London and South East region and 36% in the rest of the South and Midlands. Local recruitment (Table 8.5) explains why the non-metropolitan South and Midlands are over-represented in the ranks of the class and consequently the Northern region, Wales, Scotland and Northern Ireland under-represented.

Members born in the North and Wales, Scotland or Northern Ireland have a rather "higher" social and educational background than the rest of their colleagues. Thirty-two per cent and 31% of them respectively are middle class in background (social classes I and II) compared with 24% of the class as a whole. Only 17% of them were unqualified before entry into the Civil Service as against 26% of those born in the South and Midlands. Staff born in the North or Wales, Scotland or Northern Ireland left school later on average than their colleagues and were more likely to have attended a grammar or fee paying school.

Table 8.9: *Technical works class: Place of birth; and Distribution of the British population in 1911 and 1921¹*

Region	Technical works class	Great Britain population 1911 ¹	Great Britain population 1921 ¹
	%	%	%
North	8	33	32
East and West Riding	3		
North West	6		
North Midland	2		
London and South East	26	24	24
Rest of Midlands	5	23	23
East	3		
Rest of South	13		
South West	15		
Wales	4	20	20
Scotland	9		
N. Ireland	1		
Abroad	3		
Total	100	100	100
(N)	(206)		

¹ Calculated from *Tables III and VIII Census of England and Wales, 1921, Summary Report.*

Social class origins

There is virtually no inter-generational family recruitment into the technical works class; only 4% of the members had fathers who work or worked for the Civil Service, the lowest figure for any of the classes sampled.

Over half of the fathers (55%) worked in skilled manual occupations (Table 8.10). This makes the technical works class the most "working class" of all the Civil Service classes included in our survey, with only about a quarter from "middle class" backgrounds. Moreover, it includes a greater proportion whose fathers were working class than is normal for the national population born in the same decade as the typical member and of a social status similar to that of the whole class. Compared with their fathers most members have been upwardly socially mobile, though usually by only one social class (the technical works class is in the Registrar General's social class II). It is worth noting that despite predominantly working class origins, only 4% of the technical works class are the sons of fathers with *unskilled* manual jobs. One reason for this may lie in the educational qualifications the class normally requires from candidates—a point expanded upon in the next section.

EDUCATIONAL BACKGROUND AND QUALIFICATIONS

Candidates for the class normally have to show evidence of an adequate standard of technical education. This is usually interpreted as meaning an Ordinary National Certificate or equivalent (e.g. City and Guilds certificates), the completion of an appropriate apprenticeship or equivalent system of training,

Table 8.10: *Technical works class, and higher grade inspectoral supervisory and other non-manual workers born 1910-1919¹: Social class origins (father's occupation)*

Father's occupation	Technical works class	Great Britain, inspectoral, supervisory and other non-manual (higher grade) workers born 1910-1919 ¹
	%	%
I Higher professional and managerial	5	41
II Intermediate professional and managerial	19	
III (i) Skilled non-manual	6	55
III (ii) Skilled manual	55	
IV Semi-skilled	8	9
V Unskilled	4	
Other	3	
Total	100	100
(N)	(206)	

¹ D. V. Glass and J. R. Hall, *loc. cit.*, p. 187.

and at least three years workshop or other relevant practical experience.¹ Table 8.11 sets out both the total and highest qualification(s) possessed by recruits on entry into the Civil Service. Six per cent had some kind of university or professional qualifications and another 7% obtained other post "O" level qualifications as their highest pre-entry qualifications. It was much more common however for members to possess the O.N.C., "O" level(s), or City and Guilds qualifications as their highest qualifications. Nearly half had served industrial apprenticeships. Twenty-nine per cent were unqualified on entry. These figures make the technical works class about as well qualified on entry as the draughtsman class and better qualified than the clerical class.

There were no clear trends in the recruitment and age of staff according to their pre-entry qualifications or social class background.

It was, not surprisingly, generally the case that the higher a member's pre-entry qualification the "higher" his social class origins and the more selective and longer his schooling (Tables 8.12 and 8.13). Even so, the small minority of members with a Higher National Certificate or Higher School Certificate to their credit on joining the Civil Service were more working class in background, tended to have spent a shorter time at school and were more likely to have attended a non-selective school than colleagues with a lower qualification, namely "O" levels. Similarly, staff with the O.N.C. or with sub "O" level qualifications before entering the Civil Service had, on average, a less privileged social and educational background than completely unqualified members. It is clear, therefore, that within the general pattern of high qualifications associated with a middle class background and selective education, different types of social and

¹ Often obtained as craft apprentice skilled workers in the Civil Service.

Table 8.11: Technical works class: Total and highest educational qualifications obtained before entry into the Civil Service

Qualifications before entry	Total qualifications	Highest qualification
	%	%
University first degree	1	1
Diploma of Technology	1	1
University diploma	1	—
Membership of a professional institution	5	4
"A" level(s)	1	—
Higher National Certificate	4	7
Higher School Certificate	3	
Ordinary National Certificate	11	5
"O" level(s)	16	12
City and Guilds Certificates	14	40
Royal Society of Arts examinations	1	
Industrial apprenticeship	47	
Other	13	
No qualification	29	29
Total	*	100
(N)	(206)	(206)

* The total adds up to over 100 because many members possess more than one type of qualification.

school experience led to the possession of different types of qualification. Two factors account for this:

- (i) The H.N.C. and O.N.C. as well as industrial apprenticeships (unlike "O" levels for example) are traditionally part-time or post-school qualifications which consequently attract candidates from non-selective schools and early school leavers, who are likely to be working class.
- (ii) Educational opportunities change over time and thus for different age groups within the class. The "O" level qualification was introduced after the war, and the minimum school leaving age was raised to fifteen in 1947. Although younger members are not disproportionately middle class in origin, they are more likely than their colleagues over fifty to have attended an L.E.A. grammar school and stayed on in school until sixteen or later: (See page 9 and Table 8.15).

To a certain extent, therefore, staff possessing the H.N.C., O.N.C. and "other" qualifications on entry into the Civil Service represent the relative "successes" among working class early leavers from non-selective schools, and staff with "O" levels or no qualifications on entry include many middle class and L.E.A. grammar school "drop-outs".

Table 8.14 sets out the type of full time school last attended, and the school leaving age of members of the technical works class: 63% went to a technical school or secondary modern school (the highest proportion for any class sampled). No member was young enough to have attended a comprehensive school. A quarter had an L.E.A. grammar school education; only 8% went to a private or semi-private school and only 4% to a boarding school. These figures put the technical works class second only to the male clerical sample group in the proportion who did not receive a grammar school standard of education.

Table 8.12: *Technical works class: Highest educational qualification obtained before entry into the Civil Service, by social class origins (father's occupation)*

Father's occupation	Univ. degree or diploma, dip. tech. membership of professional institution	H.N.C. or H.S.C.	"O" level(s) or O.N.C.	Other qualifications	No qualification	All
I Higher professional and managerial	%	%	%	%	%	%
II Intermediate professional and managerial	7	7	3	6	3	5
III (i) Skilled non-manual	36	7	31	18	13	19
III (ii) Skilled manual	50	64	14	5	7	6
IV and V Semi and unskilled	7	14	44	59	55	55
Other	—	7	8	11	15	12
Total	100	100	100	100	100	100
(N)	(14)	(14)	(36)	(82)	(60)	(206)

Table 8.13: *Technical works class: Highest educational qualification obtained before entry into the Civil Service by type of full-time school last attended, and by school leaving age*

Type of school	Univ. degree or diploma, dip. tech., membership of professional institution	H.N.C. or H.S.C.	"O" level(s)	O.N.C. and other	No qualification	All
	%	%	%	%	%	%
Secondary modern	7	14	4	49	36	35
Technical	43	36	24	23	32	28
L.E.A. grammar	29	36	52	18	22	25
Direct grant	7	—	12	4	2	4
Public school and other fee paying	7	14	8	3	2	4
Schools abroad and other	7	—	—	3	7	4
Total	100	100	100	100	100	100
School leaving age						
	%	%	%	%	%	%
14 and under	14	21	12	52	25	34
15	21	36	12	29	52	34
16	29	22	56	16	16	22
17 and over	36	21	20	3	7	10
Total	100	100	100	100	100	100
(N)	(14)	(14)	(25)	(93)	(60)	(206)

If school leaving age is used as the criterion of education, the technical works class is the poorest educated of the ten classes surveyed: two thirds left school at fifteen or under and only one in ten at seventeen or over. The average school leaving age is just fifteen.

It is clear, however, that the standard of education, whether judged by the type of school attended or the length of time spent there, improves for the younger recruits (Table 8.15). Fifteen per cent of those who left school at sixteen or over are under thirty-three compared with 6% of the whole class; and 77% of those who left school at fourteen or less are over fifty compared with 59% of the whole class. (The raising of the statutory minimum school leaving age from fourteen to fifteen after World War II partly accounts for these figures.) Moreover, 72% of staff who were educated at a secondary modern school or equivalent

Table 8.14: Technical works class: Type of full time school last attended and school leaving age

Type of school	
	%
Secondary modern	35
Technical	28
L.E.A. grammar	25
Direct grant	4
Public school and other fee paying	4
Schools abroad and other	4
Total	100
	%
Day school	96
Boarding school	4
Total	100
School leaving age	
	%
13 and under	2
14	32
15	33
16	22
17	5
18	4
19 and over	1
Total	100
(N)	(206)
Average school leaving age	15.1 years

Table 8.15: Technical works class: Type of full-time school last attended and school leaving age, by age

Age	Left school at				Attended				All ¹
	14 and under	15	16	17 and over	Secondary modern	Technical	L.E.A. grammar	Direct grant, public school and other fee paying	
	%	%	%	%	%	%	%	%	%
Under 33	1	10	2	15	3	12	2	6	6
33-50	21	48	41	25	25	37	49	33	35
Over 50	77	42	57	60	72	51	49	61	59
Total	100	100	100	100	100	100	100	100	100
(N)	(71)	(69)	(46)	(20)	(72)	(57)	(51)	(18)	(206)

¹ Includes 8 members who attended "other" schools.

Table 8.16: *Technical works class: Type of full-time school last attended, and school leaving age by social class origins (father's occupation)*

Father's occupation	Left school at				Attended				All ¹
	14 and under	15	16	17 and over	Secondary modern	Technical	L.E.A. grammar	Direct grant public school and other fee paying	
	%	%	%	%	%	%	%	%	%
I Higher professional and managerial	1	6	5	15	3	4	4	11	5
II Intermediate professional and managerial	15	10	41	15	14	16	22	55	19
III (i) Skilled non-manual	6	7	9	—	4	7	10	6	6
III (ii) Skilled manual	66	61	28	55	65	61	43	22	55
IV and V Semi and unskilled	11	13	11	10	13	7	18	6	12
Other	—	3	7	5	1	5	4	—	3
Total	100	100	100	100	100	100	100	100	100
(N)	(71)	(69)	(46)	(20)	(72)	(57)	(51)	(18)	(206)

¹ Includes 8 members who attended "other" schools.

are over fifty as against 59% of the whole class, whereas 51% of those who attended an L.E.A. grammar school and 55% of the few who went to a public fee paying school are fifty or under compared with 41% of the class as a whole. It does not necessarily follow, however, that the trend in recruitment is towards a higher educational standard because the figures do not, of course, cover former members who attended grammar school or who left school at seventeen or later and who have since been promoted into the professional works group.

Social class is a background factor that is partially related to the type of school attended and the length of schooling of members, as Table 8.16 indicates. Forty-six per cent of staff who stayed on at school until sixteen and 30% of those who left at seventeen or later are middle class in origins as are two thirds of those who attended direct grant and independent fee paying schools; these figures compare with the 24% of the whole class whose beginnings were middle class. Two-thirds of the class are the sons of fathers who were manual workers; this compares with at least three-quarters of the members who left school at fifteen or earlier, and who went to a secondary modern school.

OCCUPATIONAL EXPERIENCE

Previous field of employment

Only a quarter of the class have not had a job outside the Civil Service (Table 8.17): these tend to be young, poorly qualified and locally recruited members who started their careers in the Civil Service in the industrial grades and have been promoted. Thus 66% are under fifty compared with 41% of the whole class; 76% are of working class origins compared with two thirds of the class as a whole; and over half (52%) were completely unqualified on entry into the Civil Service as against 29% of the technical works class altogether. Seventy-eight per cent of this minority began their Civil Service careers in a class other than the draughtsman or technical works class, very largely in the industrial grades.

Table 8.17: Technical works class: Field of employment before joining the Civil Service

Field of employment	
	%
None	24
Industry	64
Commerce	8
Education	1
Local government	4
Armed forces and local uniformed services	17
Communications	1
Social services	1
Agriculture, forestry, fishing	2
Other	6
(N) ¹	(206)

¹ The total adds up to over 100 because some members were employed in more than one field before joining the Civil Service.

The great majority of the 76% who had some occupational experience outside the Civil Service had worked in industry—64% of the class—a figure higher than for any other class surveyed except the professional works group. Of more interest is the extent to which the armed forces and local uniformed services (police, fire service, etc.) have contributed staff (one in six members). The similar type of work prevalent in the armed forces is an obvious explanation.

No particular field of outside employment seemed to have acted as a channel for the recruitment of a certain "type" of member to the technical works class. However, there was a tendency for members who had once worked in industry to be older, earlier school leavers and more likely to have been educated at L.E.A. non-selective schools than the average for the class; the armed forces and local uniformed services on the other hand, contributed disproportionately middle class, well qualified, late school leavers from L.E.A. grammar schools. All members who had worked elsewhere were more likely than average to have entered the class directly.

Educational qualifications after entry

Table 8.18 sets out the highest (and total) educational qualifications obtained by members of the class before and after entry into the Civil Service, as well as the highest educational qualifications possessed, whenever gained. Nearly half of the class actually obtained some kind of qualification while working in the Civil Service. This is a remarkable figure, lower only than that for the experimental officer class and the professional works group.¹ It almost certainly means that well over half the class have undertaken some educational course during their career in the Civil Service even if not all have obtained a qualification as a result. It reduces the figure of unqualified staff in the class from 29% on entry into the

¹ It is partly explained by the provision the Civil Service makes for young craft apprentices and skilled workers to study part-time for the O.N.C. examinations.

Table 8.18: *Technical works class: Total and highest educational qualifications obtained before or after entry into the Civil Service*

Educational qualification	Obtained before entry		Obtained after entry		Whenever obtained
	Total	Highest	Total	Highest	Highest
	%	%	%	%	%
University degree, dip. tech.	2	2	—	—	2
Univ. diploma	1	—	—	—	
Membership of a professional institution	5	4	10	10	10
"A" level(s)	1	—	—	—	
Higher National Certificate/ Diploma	7	7	10	11	77
Ordinary National Certificate/ Diploma	12	5	13		
"O" level(s)	16	12	3		
City and Guilds Certificates	14	40	13	27	
Industrial apprenticeships	47		14		
Other qualification	13		12		
No qualification	29	29	52	52	12
Total	*	100	*	100	
(N)	(206)	(206)	(206)	(206)	(206)

* Totals add up to over 100 because some members gained more than one type of educational qualification.

Civil Service to 12% of the staff at present. Most of the qualifications gained while working in the Civil Service are of O.N.C. standard or "O" level or below, but one in five of the class became a member of a professional institution or gained the H.N.C. or H.N.D. during his Civil Service career.

Those obtaining a qualification after appointment are younger than average: 58% are under fifty compared with 41% of those who did not obtain any educational qualification after entry. They are also more likely than their colleagues to have worked all their lives in the Civil Service (35% as against 24% of the whole class). The small minority of 10% who have become members of a professional institute whilst in the Civil Service are distinctive both socially and educationally. Thirty-five per cent are middle class in origins as against 24% of the whole class; and they are more likely than their colleagues to have left school at sixteen or later and to have attended a grammar, direct grant or fee paying school. To this extent the opportunity offered by the Civil Service of obtaining educational qualifications is used by the social and educational elite within the class to improve their position. The H.N.C., H.N.D. or O.N.C. is the more usual qualification.

Class to class mobility

Members are about equally divided between those first appointed to the technical works class and those not (Table 8.19). This compares with a figure of 70% for direct entrants into the equivalent Civil Service class in France.¹ The

¹ F. F. Ridley (ed.), *Specialists and Generalists*, p. 113, George Allen & Unwin, London, 1968.

Table 8.19: Technical works class: Class on entry into the Civil Service

Class on entry ¹	%
Technical works class	49
Draughtsman class	3
Other classes	48
Total	100
(N)	(206)

¹ Whether initially established or not.

great majority of those who began their Civil Service career in a class other than the technical works or draughtsman classes, started in an industrial grade and may be considered "promotees". Those whose whole time in the Civil Service has been as members of the technical works class will be referred to as direct entrants.

In any large organisation made up of numerous classes and grades where direct recruitment is fairly rigidly based on different educational standards, class to class promotion is an important means for staff to rise within the hierarchy on the basis of their experience rather than formal qualifications. There is considerable evidence that promotion from the industrial grades into the technical works class has functioned in this way. Promotees have served longer than direct entrants: 19% of promotees but no direct entrants among present members were established before the war, and over half of the promotees were appointed, if only in a temporary capacity, before the war as against 22% of the direct entrants. Figures on the pre-entry occupational experience of the two groups confirm this conclusion. Table 8.20 shows that only 8% of the direct entrants but 40% of the promotees have always worked in the Civil Service.

A cross tabulation between Civil Service class of origin and method of permanent establishment has been included in Table 8.20, to indicate the part played by nomination in promoting workers in the industrial grades into the technical works class. However, nearly half of the direct entrants were first established by limited competitions (i.e. competitions for those already in the service but usually in a "lower" class).

It was interesting to note that a greater proportion of direct entrants (31%) than promotees (14%) were posted in London, an indication that senior positions within the class are predominantly filled by the former group.

The differences in pre-entry educational qualifications are considerable (Table 8.21): 38% of the direct entrants compared with 25% of the promotees possessed "O" level(s) or above on entry; 41% of the promotees, but only 17% of the direct entrants were unqualified before joining the Civil Service. This gap is only narrowed a little by the slightly greater proportion of the former compared with the latter who obtained qualifications while employed in the Civil Service.

However, if class to class promotion has the effect of admitting into the technical works class unqualified or relatively poorly qualified but

Table 8.20: *Technical works class: Class on entry into the Civil Service by method of permanent establishment to the Civil Service and by field of employment before joining the Civil Service*

Method of permanent establishment	First appointed to		All ²
	Technical works class	Other classes	
	%	%	%
Open competition	16	5	10
Post-war reconstruction competitions	5	3	4
Nomination	32	84	57
Limited competition	47	8	28
Other	1	—	1
Total	100	100	100
Previous field of employment			
	%	%	%
None	8	40	24
Some	92	60	76
Total	100	100	100
(N)	(101)	(98)	(206)

¹ Excluding the draughtsman class.

² Includes 7 members first appointed to the draughtsman class.

Table 8.21: *Technical works class: Class on entry into the Civil Service by highest educational qualification obtained before entry into the Civil Service*

Highest qualification before entry	First appointed to		All ¹
	Technical works class	Other classes	
	%	%	%
Univ. degree or diploma, Dip. Tech.; membership of professional institution	9	5	6
Higher National Certificate or Higher School Certificate	13	1	7
"O" level(s) or Ordinary National Certificate	16	19	17
All other qualifications	46	34	40
No qualification	17	41	29
Total	100	100	100
(N)	(101)	(98)	(206) ²

¹ Excludes the draughtsman class.

² Includes 7 members first appointed to the draughtsman class.

long-serving staff, it has only slightly widened the social or school background of the class (Table 8.22).

Table 8.22: *Technical works class: Class on entry into the Civil Service by social class origins (father's occupation) and type of full-time school last attended*

Father's occupation	First appointed to		All ²
	Technical works class	Other classes ¹	
	%	%	%
I and II Higher and intermediate professional and managerial	28	21	24
III-V Skilled manual and non-manual, semi and unskilled	68	76	73
Other	4	2	3
Total	100	100	100
Type of school			
	%	%	%
Secondary modern and comprehensive	38	32	35
Technical	24	32	28
L.E.A. grammar	26	24	25
Direct grant, public and other fee paying schools	9	8	8
Schools abroad and other	4	4	4
Total	100	100	100
(N)	(101)	(98)	(206) ²

¹ Excludes the draughtsman class.

² Includes 7 members first appointed to the draughtsman class

PROFESSIONAL AND LEISURE ACTIVITY

Membership of voluntary associations

The proportions of the technical works class who are nominal or active members of voluntary organisations can be seen from Table 8.23 where they are compared with a national sample. The class is typical of other subordinate classes. Organisations connected in some way with leisure and social activities claim the highest proportion of members, closely followed by non-professional work-connected associations. About one in four members belonged to a professional organisation and to a civic group. Membership of outside associations is low by comparison with other Civil Service classes (although considerably greater than in the country at large). Three members out of five did not participate in the running of any outside organisation.

It is clear from Table 8.24 that both nominal¹ and active membership of organisations is more prevalent among the younger men in the class: 76% of the minority who did not belong to any organisation and 65% of those who did not actively contribute to the running of an organisation were over fifty compared with 59% of the class as a whole.

¹ Significant only at a 10% level.

Table 8.23: *Technical works class and local government electors¹: Nominal and active membership of organisations and voluntary associations*

Type of organisation	Technical works class		Local government electors ¹
	Nominal members	Active members	Nominal members
	%	%	%
None	14	62	X
Professional bodies connected with work	27	2	} 27
Other associations connected with work	55	14	
Clubs and societies connected with social and leisure activities	61	14	
Religious and Church-connected associations	11	6	} 19
Civic groups	25	4	
Associations connected with education and training	12	8	5
Public bodies or committees	1	—	1
Associations connected with welfare	3	1	3
Other associations, societies, etc.	15	4	X
(N) ²	(206)	(206)	(X)

¹ M. Horton, *op. cit.*² Totals add up to over 100 because some staff were nominal and active members of more than one type of organisation.Table 8.24: *Technical works class: Nominal and active membership of outside organisations and voluntary associations, by age*

Age	Nominal members of no organisation	Nominal members of organisations connected with		Active members of no organisation	Active members of organisations connected with		All ¹
		Social and leisure activities	Work		Social and leisure activities; Church and religious affairs	Work	
	%	%	%	%	%	%	%
Under 33	3	5	7	7	3	3	6
33-50	21	40	39	28	51	53	35
Over 50	76	55	54	65	46	44	59
Total	100	100	100	100	100	100	100
(N)	(29)	(125)	(132)	(127)	(39)	(32)	(206)

¹ Includes nominal and active members of other types of organisation.

Table 8.25: *Technical works class and the adult population of Great Britain¹: Readership of daily and Sunday newspapers*

Daily newspaper	Technical works class	Great Britain adult population 1963/4 ¹	
		Men with a T.E.A. of 16-18	All adults in class (c) with a T.E.A. of 15 or less
	%	%	%
Times	5 } 12	7	2
Guardian	7 }	9	2
Daily Telegraph	32	28	9
Daily Express	40 } 62	43	41
Daily Mail	21 }	25	21
Sun	5 }	8	8
Daily Mirror	22 } 26	26	32
Daily Sketch	6 }	8	8
None	2	X	X
<hr/>			
Sunday newspaper			
	%	%	%
Sunday Times	22 } 34	23	9
Observer	15 }	12	3
Sunday Telegraph	13	16	5
Sunday Express	47	47	37
News of the World	13 }	25	35
Sunday Mirror	23 } 30	25	31
Sunday Citizen	1 }	2	2
People	23 }	29	39
None	18	X	X
(N) ²	(206)	(1,158)	(1,467)

¹ Mark Abrams, *Education, social class and reading of newspapers and magazines*, pp. 14, 19.

² Totals add up to over 100 because many members read more than one daily or Sunday newspaper.

There was no clear-cut distinction in background between those who nominally or actively belong to different types of outside associations, but both nominal and active members of professional or religious associations tended to be disproportionately middle class in origins, well-qualified on entry into the Civil Service and late school leavers.

Readership of the daily and weekly press

Regular reading of daily and Sunday newspapers followed a similar pattern to that for the clerical, draughtsmen and scientific assistant classes. The *Daily Express* was the most popular weekday paper, closely followed by the *Daily Telegraph*. In general, the class's choice of newspapers was far more serious than that of adults in the country at large of the same social class and a similar, if slightly inferior, educational background. For example, as many as 12% of

Table 8.26: *Technical works class: Readership of weekly periodicals*

Periodical	%
None	74
Economist	3
New Statesman	3
Spectator	1
New Society	1
Statist	1
Listener	13
Times Educational Supplement	7
Times Literary Supplement	4
(N) ¹	(206)

¹ The total adds up to over 100 because some members read more than one of the weekly periodicals listed.

the technical works class read the *Times* and the *Guardian*, and a third regularly read the *Sunday Times* or *Observer* as against 4% and 12% respectively of the national population sample cited above. In fact the pattern of readership is much closer to that of the national male adult population with a somewhat superior education—a terminal education age of sixteen to eighteen. Readership of the daily and Sunday tabloids as usual was less than that of the comparable national population. However, nearly half of the members read the *Sunday Express* at least three times a month; less than half as many regularly read the *Sunday Times*, *Sunday Mirror* or the *People*, the next most popular Sunday newspapers. Nearly one in five of the class did not read any Sunday newspaper regularly, a high proportion for any Civil Service class (Table 8.25).

No social or educational background factor is distinctly related to the choice of any one, or any type of newspaper. There is evidence that members with a relatively good education (judged by the length and type of schooling and pre-entry qualifications) tend more to read the serious newspapers (the *Guardian*, the *Times*, the *Observer*, the *Sunday Times*) but the correlations are weak and erratic. Readers of the *Times* and the *Daily* and *Sunday Telegraph* are older than average.

As Table 8.26 indicates, a quarter of the class reads at least one of the listed non-scientific journals, mainly the “non-political” *Listener*, *Times Educational Supplement* and *Times Literary Supplement*, as is typical for members of the subordinate classes. This is an impressively high figure considering the scientific nature of members’ work and their educational background. It is, however, the older and better qualified members who tend to read the journals.

Chapter IX

The Draughtsman Classes

THE CLASSES

Function

Our sample group of 196 comprises the architectural and engineering draughtsman classes and the smaller cartographic and recording draughtsman and surveyor classes. These are "linked departmental classes" i.e. a series of departmental classes linked for the purposes of pay and certain other conditions of service. The architectural and engineering draughtsman classes prepare or assist in the preparation of engineering or architectural drawings, plans and designs needed for production purposes or building operations. In practice duties vary between departments. The cartographic and recording draughtsman and surveyor classes are largely employed by the Ordnance Survey and concerned with the construction and revision of maps, charts and diagrams. Some staff specialise in surveying and work on the measurement of roads and topographical features.

Salary, grades and tenure

The present tenure, salary range and sex of the four grades which contribute to our sample group from the combined draughtsman classes appear in Table 9.1. The excluded grades of cartographic assistant and drawing office assistant carry out very routine work and have cadet training functions. Over half the combined classes are in the basic draughtsman grade, and another third in the higher/leading grade whose members are responsible for high quality individual work. The two remaining grades are supervisory. Thus although a member at the top of his class can earn £2,207 p.a., the "bottom-heavy" structure of the class pitches the average salary at about £1,250.¹

If the cadet/training and routine grades are excluded, only 5% of the class is female. This figure is above that for the other two technical classes where women comprise less than 1%, but far less than that for the scientific and desk classes of similar responsibility, the scientific assistant class (17%) and clerical class (44%). This fits in with the tendency for women to choose the "pure" rather than applied scientific subjects at schools and colleges. As usual the small female minority are disproportionately concentrated in the lower grades and hardly figure at all in the two senior grades. Figures not included in Table 9.1 show that 86% of the women are in the bottom draughtsman grades as against 41% of the men, and only 1% are in the top two grades compared with 19% of

¹ The salary ranges for each grade of the two classes largely overlap although they tend to be slightly higher for the architectural and engineering draughtsman classes. The average was calculated from *Civil Service Estimates 1967/68*.

Table 9.1: *Draughtsman class¹: Grade by tenure, sex and salary*

	Chief grade	Senior grade	Higher/ Leading grade	Draughtsman grade	All ¹
% of class ²	%	%	%	%	%
% permanent ²	100	98	92	69	81
% male ³	99	100	98	91	95
Salary ⁴ (Architectural and engineering draughtsmen)	£1,904– £2,207	£1,527– £1,829	£1,263– £1,480	£766 (at 21)– £1,154 (at 28)– £1,263	
Salary ⁴ (Cartographers and recording draughtsmen)	£1,699– £2,041	£1,418– £1,699	£1,190– £1,418	£365 (at 16)– £608 (at 21)– £1,190	
(N) ⁴	(251)	(1,429)	(3,973)	(6,664)	(12,317)

¹ Both the architectural and engineering draughtsman classes, and the cartographic and recording draughtsman and surveyor classes have been taken together. The grades of cartographic assistant and drawing office assistant, not included in the sample group, are omitted.

² Calculated from H.M. Treasury, *Introductory Factual Memorandum on the Civil Service*, pp. 78, 81.

³ These figures were provided by the Central Staff Record and refer to permanent staff only in November, 1966.

⁴ Permanent and temporary staff, on 1st April, 1967.

the men. The small number of women obliged us to limit our sample group to men.

Nineteen per cent of the combined class, men and women, is at present temporary, the proportion dwindling from 31 % for the draughtsman grade to virtually nothing for the two higher grades, and being larger for the architectural and engineering draughtsman classes. This is a relatively low proportion for subordinate scientific and technical classes: over a third of the technical works class and more than half of the scientific assistant class are temporaries. However only 16 % of the draughtsman class sampled were initially permanent on appointment. It is traditional practice for departments to recruit staff locally and initially on an unestablished or temporary basis, particularly for the architectural and engineering draughtsman classes whose members tend to be appointed before their nomination to the C.S.C. for establishment or their success in the open competition.

Length of service

Members' seniority, their total established service and whether or not they were established on first appointment are shown in Table 9.2. The Civil Service draughtsmen resemble other subordinate classes in the small proportion established to the Civil Service before the war (5 %). However, they differ in the large group first *appointed* before the war (31 %), and therefore the proportion remaining for six years or more as temporaries (26 %). The minority of staff initially established are disproportionately recent appointments¹ and they are

¹ Probably because the open competition for architectural and engineering draughtsmen was only established in 1952.

Table 9.2: *Draughtsman class: Initial tenure on appointment by year of appointment and year of permanent establishment to the Civil Service*

Year	Initially temporary		Initially permanent	All (whatever initial tenure)	
	Appointed	Established	Appointed and established	Appointed	Established
	%	%	%	%	%
1920-29	4	}	}	}	}
1930-39	31				
1940-45	16	}	}	}	}
1946-49	23				
1950-59	19				
1960-66	7				
	100	100	100	100	100
(N)	(165)	(165)	(31)	(196)	(196)

Table 9.3: *Draughtsman class: Initial tenure on appointment by age*

Age	Initially permanent	Initially temporary	All
	%	%	%
Under 33	52	14	20
33-50	32	59	55
Over 50	16	27	26
Total	100	100	100
(N)	(31)	(165)	(196)

younger than average; over half are under thirty-three compared with only 14% of those initially unestablished, and one-fifth of the whole class (Table 9.3).

"Many appointments are made on an unestablished basis in the first instance by local departmental recruitment."¹ This applies specifically to the architectural and engineering draughtsmen. The minority of initially established draughtsmen are disproportionately post-war recruits (87% of them compared with 78% of the draughtsman class as a whole and with 76% of those initially unestablished). As in the other subordinate classes (scientific assistant, technical works, clerical) fewer than 10% were appointed permanently before the war. On the other hand 35% of these initially temporary recruits were *first* temporarily employed before 1940. That 35% of the initially temporary recruits were first employed before the war confirms that initially established staff are predominantly and disproportionately a post-war feature of recruitment to the draughtsman class.

¹ H.M. Treasury, *Introductory Factual Memorandum on the Civil Service*, p. 79.

Method of permanent establishment to the Civil Service

As Tables 9.4 to 9.6 indicate, distinct groups within the present draughtsman class, differing in age, length of service and socio-educational background were first established in the Civil Service by different methods:

- (i) the open competition for the architectural and engineering draughtsman classes, with "other" methods (which are mainly special open competitions for cartographic draughtsmen for members of H.M. Forces or the Overseas Civil Service) have largely supplied the class with a young, recently recruited social and educational elite. These two routes to permanent establishment are followed by less than a quarter of the class but are virtually the preserve of the younger members, having contributed 77% of its staff under thirty-three (Table 9.4). Only 17% of the open competition recruits and 7% of those established by "other" methods were unqualified on entry into the Civil Service, as against a third of the whole class; and both routes of establishment count among them a disproportionately high number of staff with pre-entry qualifications at the H.S.C. level and above (Table 9.5). The type of school these members attended and the age at which they left it, support all indications that they form the best educated sector of the class. For example, over a third of them left school at seventeen or later compared with a quarter of the whole class.¹ They are more likely than their colleagues to have attended an L.E.A. grammar school (Table 9.6) and to have middle class (i.e. social class I or II) origins. Forty per cent have a middle class background as against a quarter of the whole class. It must be emphasised that their relative youth and short length of service in no way proves that there is a trend towards the recruitment of draughtsmen through the open competition and "other" methods, and thus towards disproportionately well qualified and educated middle class candidates. The sample groups consist of present members of the draughtsman class and does not cover, for example, ex-members who were also open competition recruits, similarly well qualified and educated, and have been promoted into other classes, for example the professional works group. However, the lower age of open competition entrants as against nominees, will reflect changes in the educational system such as the growth in the number of qualified school leavers.²
- (ii) forty-four per cent of the class have been nominated into established posts and this is the single most important method of permanent establishment within the class, especially in the cartographic and recording draughtsman and surveyor classes. It is predominantly the occupational experience of the older, long-serving members, many with working class origins and with poor or no qualifications on joining the Civil Service. Whereas nominees constitute 44% of the whole class they predominate in the group over fifty (78% of it) and the

¹ A small part of the explanation for the later school leaving age of open competition recruits rests in the slightly stiffer educational requirements and the higher minimum age of entry into the architectural etc. draughtsman class compared with the cartographic etc. draughtsman class, for which there is no open competition.

² It may also be that with the introduction of the open competition for architectural and engineering draughtsmen, departments are recruiting only such temporary staff as will be eligible for establishment through open competition later. This would be a further reason for the better educational standard of recent recruits.

Table 9.4: Draughtsman class: Method of permanent establishment to the Civil Service; and, age and year of permanent establishment to the Civil Service by method of permanent establishment to the Civil Service

Method of permanent establishment	All	Age			Established		
		Under 33	33-50	Over 50	Before 1940	(Appointed) 1940-45	1946 and after
	%	%	%	%	%	%	%
Open competition	15	41	13	—	—	4	19
Post-war reconstruction competition	11	5	16	4	7	19	10
Nomination	44	18	38	78	93	44	39
Limited competition	22	—	32	18	—	33	22
Other ¹	8	36	1	—	—	—	10
Total	100	100	100	100	100	100	100
(N)	(196)	(39)	(107)	(50)	(15)	(27)	(154)

¹ Mainly special competitions for members of H.M. Forces or the Overseas Civil Service.

Table 9.5: Draughtsman class: Method of permanent establishment to the Civil Service by highest educational qualification obtained before entry into the Civil Service

Highest qualification before entry	Open competition	Post-war reconstruction competition	Nomination	Limited competition	Other	All
	%	%	%	%	%	%
Membership of a professional institution, univ. diploma	3	14	1	7	—	5
"A" level(s)	3	—	—	—	20	2
Higher National Certificate, Higher School Certificate	17	—	3	5	7	6
"O" level(s)	30	24	24	28	67	29
Ordinary National Certificate	17	14	6	2	—	7
All other qualifications	13	19	22	23	—	19
No qualification	17	29	44	35	7	33
Total	100	100	100	100	100	100
(N)	(30)	(21)	(87)	(43)	(15)	(196)

smaller sector established before the war (93%). They left school earlier than their colleagues (55% at fifteen or younger, compared with 33% of the open competition recruits), and often without any qualifications. Forty-four per cent had no qualifications on entering the Civil Service (as against a third of the whole class) and only 4% had reached H.S.C. level or above compared with 13% of the class (Table 9.5). Table 9.6 indicates that a relatively high proportion of nominees went to L.E.A. non-selective schools, and they also tend

Table 9.6: *Draughtsman class: Method of permanent establishment to the Civil Service by type of full-time school last attended and by school leaving age*

Type of school	Open competition	Post-war reconstruction competition	Nomination	Limited competition	Other competition	All
	%	%	%	%	%	%
Secondary modern and comprehensive	23	14	29	14	20	22
Technical	27	24	29	30	—	26
L.E.A. grammar	43	33	30	40	67	37
Direct grant	—	19	2	9	—	5
Public school and other fee paying	3	10	6	2	13	6
Schools abroad and other	3	—	5	5	—	4
Total	100	100	100	100	100	100
School leaving age						
	%	%	%	%	%	%
14 and under	10	14	14	19	—	13
15	23	34	41	14	7	29
16	34	33	29	39	20	32
17 and over	33	19	16	28	73	26
Total	100	100	100	100	100	100
(N)	(30)	(21)	(87)	(43)	(15)	(196)

to come from working class backgrounds. Seventy-six per cent are the sons of fathers in social classes III, IV or V as against 71 % of the class.

- (iii) the age, seniority and socio-educational background of the remaining group, a third of the class, who became established in the Civil Service by the post-war reconstruction examinations or by a limited competition, fall between the extremes of groups (i) and (ii) and generally resemble those of the class as a whole. There are two interesting points about their background. First, it is perhaps rather surprising that the limited competition did not, as is often expected, cater for relatively poorly qualified and educated staff. Second, 29 % of those established by the post-war reconstruction competition come from direct grant or independent fee paying schools, compared with 11 % of the whole class. This is another piece of evidence to contradict the common assumption that war-time conditions offered opportunities throughout the Civil Service for those with less privileged educational and social backgrounds. A very similar pattern of recruitment via the different methods of establishment occurs in the technical works class (See Chapter VIII, p. 255). The sections following in this chapter on social and educational background, and occupational experience, will elaborate on this categorisation of groups within the draughtsman class.

Table 9.7: *Draughtsman class: Location; and place of birth by location*

Location	All	Born in				
		North	London and South East	Rest of South and Midlands	Scotland, Wales and N. Ireland	Abroad
	%	%	%	%	%	%
Inner London	8	9	13	5	10	11
Outer London	19	14	40	9	5	22
North	7	29	—	—	14	11
Rest of England and Wales	62	} 49	} 47	} 86	} 71	} 56
Scotland	5					
Total	100	100	100	100	100	100
(N)	(196)	(35)	(53)	(78)	(21)	(9)

Location

In company with the other scientific and technical Civil Service classes, the majority of the draughtsman class are located in the non-metropolitan South, with only 12% in the North or in Scotland, and only 8% in central London offices. As Table 9.7 shows, this Southern concentration is supported by intensive local recruitment. Although only 7% of the class work in the North, 29% of Northerners do so; and over half of those born in the London and South East area work in inner or outer London compared with just over a quarter of the whole class. Similarly the vast majority of those born in the non-metropolitan South are employed in this same area.¹

Departmental distribution

It is unusual for a technical or scientific class to have such a substantial minority in the non-scientific departments (Table 9.8): in fact the third of the draughtsman class in "other" departments are mainly in the Post Office, (architectural and engineering draughtsmen concerned with tele-communications), at the Ministry of Overseas Development and the Ordnance Survey (cartographic and recording draughtsmen). The majority of the engineering and architectural draughtsmen are in the scientific departments, specifically the Ministries of Public Building and Works, Defence (including the former Navy Department) and Technology (including most of the old Ministry of Aviation).

There appear to be few interesting differences between the background of draughtsmen in the technical and "other" departments: but, briefly, the minority of those in the "other" departments are younger and more recently recruited than average and thus better qualified, especially in "O" levels, and disproportionately recruited by the "other" methods.

¹ For the convenience of the survey the South and Scotland were linked together as a residual category in the location variable. Our conclusions are not invalidated as a result. If none of those born in the non-metropolitan South work in the North it is hardly likely that more than a few will work in Scotland.

Table 9.8: *Draughtsman class:
Departmental distribution*

Type of department	
	%
Economic	3
Social	1
Technical	63
Other ¹	34
Total	100
(N)	(196)

¹ Mainly the Post Office, Ordnance Survey and Ministry of Overseas Development.

Table 9.9: *Draughtsman class: Age*

Age	
	%
17-20	3
21-25	4
26-30	7
31-35	10
36-40	18
41-45	15
46-50	18
51-55	14
56-60	8
61-65	3
Over 65	1
Total	100
(N)	(196)
Average age	43.78 years

Age and marital status

The typical (median) draughtsman is aged between forty-one and forty-five (Table 9.9); the class as a whole has a symmetrical age structure. There is a gradual increase in the proportions aged from twenty to forty and a gradual decrease in the proportions aged from forty-five to sixty-five. Like all the technical classes, the draughtsman class is older than other Civil Service classes of similar authority, but with scientific or desk functions; it has a smaller proportion of members under thirty than either the clerical or scientific assistant classes.

As may be seen from Table 9.10, 11 % of the class are bachelors, a small proportion compared with all other male lower grade sample groups except those within the professional works group (5 %). Marital status is very much a function of the age structures of a class and because the draughtsman class is older than the male scientific assistant and clerical sample groups, fewer of them are single. Members of the draughtsman class are also more likely to be married than the

Table 9.10: *Draughtsman class and Great Britain, male population, 1966¹: Age by marital status*

Marital status	Draughtsman class				Great Britain, male population 1966 ¹			
	All	Aged			All (aged 16-65)	Aged		
		Under 33	33-50	Over 50		16-32	33-49	50-65
	%	%	%	%	%	%	%	%
Single	11	41	4	4	27	57	11	8
Married	87	54	95	94	71	43	87	87
Widowed/separated/ divorced	2	5	1	2	2	—	2	5
Total	100	100	100	100	100	100	100	100
(N)	(196)	(39)	(107)	(50)				

¹ Calculated from figures on p. 2 of the *Sample Census, 1966, Great Britain, Summary Tables*.

general male population of the same age range (Table 9.10). However, the average age of the sixteen to thirty-two age group in the national population will be younger than that in the draughtsman class, thereby exaggerating their differences in marital status.

SOCIAL BACKGROUND

Geographical origins

We already know that draughtsmen work predominantly in the South of England or in London, and that there is considerable local recruitment. We should therefore expect to find a predominance of Southerners in the draughtsman class. Table 9.11 confirms our expectations: two-thirds of the class were born in London, the South or the Midlands, which is over-representative of the proportion of the national population living in those areas in the census year nearest to the average year of birth of the draughtsman class. But it is specifically the non-metropolitan Southerners who are markedly over-represented; those born in London and the South East are only slightly over-represented; whilst Northerners and staff born outside England are a considerably smaller proportion of the class than they are of the 1921 national population.

No other table on geographical origins is reproduced. It is worth noticing however, that Northerners were more middle class in origins (32% compared with 25% of the class) and had higher qualifications on entry than average (20% had "A" level(s), the H.N.C. or H.S.C. compared with 8% of the class). This is partly because they are younger and more recent recruits than the rest of the class. On the other hand, non-metropolitan Southerners, who are also disproportionately young are more working class in origins, worse qualified on entry and have disproportionately attended L.E.A. non-selective schools. Thus the Northerners, markedly high standard of education cannot be explained wholly by their relative youth. Staff born in Wales, Scotland and N. Ireland

Table 9.11: *Draughtsman class: Place of birth; and distribution of the British population in 1921*¹

Region	Draughtsman class	Great Britain population 1921 ¹
	%	%
North	7	32
East and West Riding	3	
North West	7	
North Midlands	2	
London and South East	27	24
Rest of Midlands	3	23
East	2	
Rest of South	22	
South West	13	
Wales	7	20
Scotland	3	
N. Ireland	1	
Abroad	3	
Total	100	100
(N)	(196)	

¹ Calculated from Tables III and VIII of *Census of England and Wales, 1921, Summary Report*.

Table 9.12: *Draughtsman class: Proportion whose fathers are civil servants*

Whether father a civil servant	
	%
No	87
Yes, in social classes I and II	4
Yes, in social classes III, IV and V	9
Total	100
(N)	(196)

are the best qualified and more attended L.E.A. grammar schools than non-selective schools (only 19% were unqualified on entry compared with 33% of the class; 81% attended L.E.A. grammar schools compared with 37% of the class). Perhaps it is precisely the relative disadvantages in "life-chances" for those born in the North or outside England that explains their slightly higher qualifications and better schooling than average. An exceptional number of surviving war-time recruits, incidentally, were born in London and the South East (44%) compared with the whole class (of whom 27% were born in the same region).

Social class origins

Thirteen per cent of the draughtsman class have fathers who had a non-industrial post at some time in the Civil Service (Table 9.12). This is a fairly high

proportion for a Civil Service class of this type, and much higher than the proportion of draughtsmen's fathers in the country at large who were also draughtsmen, which is 2.5%¹. of course, we do not know the proportion of the class who had draughtsman fathers whether or not in the Civil Service; but the figure of 13% indicates that there might be a slight tendency for draughtsmen with Civil Service fathers to look initially to the Civil Service as an employer.

As Table 9.13 shows, the typical (median) draughtsman in the Civil Service is the son of a skilled manual worker (Registrar General's social class III (ii)). The Registrar General classifies the draughtsman as a skilled non-manual worker (social class III(i)). It follows therefore that there has been technically more upward than downward mobility between the generations into the draughtsman class (65% upward compared with 25% downward). But the majority of upward mobility has consisted merely of crossing the manual/non-manual line. Income and status differentials between skilled manual and non-manual workers are narrow and decreasing and thus the typical member may really be said to have been socially immobile between the generations. Of all the Civil Service classes surveyed by us, the draughtsman class is the most working class in background along with the technical works and clerical classes. (The technical classes in general are more working class in origins than their counterparts amongst the desk and scientific classes). It contains almost the lowest proportion of members with middle class antecedents and, except for the technical works class, the highest proportion of sons of skilled manual workers. Yet the class has surprisingly few born into social classes IV and V. The proportion is smaller than in the other male sample groups of equivalent authority (technical works, clerical and scientific assistant classes), and smaller also than in the executive class. Moreover, the proportion is less than half that of draughtsmen in the country generally (Table 9.13). Otherwise the social origins of the draughtsman class and of draughtsmen in general are similar. In addition the class is still more middle class in background than the national working population born in the same decade as the class's typical (median or average) member, and of a social status (lower grade non-manual occupations) similar to that of the whole class.

Although a similar type of correlation between educational background and social origins as appears in other classes, occurs for the draughtsman class, it is perhaps not as strong as usual. A quarter of those from middle class backgrounds were unqualified on entering the Civil Service (compared with a third of the whole class), and 20% possessed qualifications at the H.N.C. level or above compared with 13% of the class as a whole. Moreover the educational qualifications attained by those of working class origins are very close to those of the class as a whole. To some extent the data suggests therefore that the class attracts a mixture of the educational "drop-outs" from the middle class (and grammar schools) and the relative successes from the working class, and non-selective schools.

Table 9.14 sets out the school leaving age and type of school attended by those of different social backgrounds in the draughtsman class, and points out a similar conclusion. Although in general, the "lower" the class origins of members, the greater the proportions who left school at fourteen or earlier, and the smaller the proportions who stayed on until sixteen or later, a higher proportion

¹ From a survey conducted by Dr. G. Routh for the D.A.T.A. which was reported in *The Draughtsman*, September 1961.

Table 9.13: *Draughtsman class, U.K. draughtsmen,¹ and Great Britain non-manual (lower grade) workers, born 1920-29²: Social class origins (father's occupation)*

Father's occupation	Draughtsman class	U.K. draughtsmen ¹	Great Britain, non-manual (lower grade) workers, born 1920-29 ²
	%	%	%
I Higher professional and managerial	2	7	} 14
II Intermediate professional and managerial	23	14	
III (i) Skilled non-manual	51	51	
III (ii) Skilled manual	10	6	
IV and V Semi and unskilled	10	22	} 17
Other	4		
Total	100	100	100
(N)	(196)	(941)	(58)

¹ Dr. G. Routh, *loc. cit.*

² D. V. Glass and J. R. Hall, *loc. cit.*, p. 187.

of the sons of semi or unskilled manual workers left school at seventeen or later (58%) than of the sons of skilled manual workers (48%).¹ Thus not only does the draughtsman class consist of surprisingly few sons of semi and unskilled workers, but this minority has an exceptionally high school leaving age. The average school leaving age of draughtsmen in general appears to be later than that of the draughtsman class except among those whose fathers were semi and unskilled manual workers.

Roughly, the "higher" the social origins of a member of the draughtsman class the more likely is it that he went to an L.E.A. grammar school, or to a more selective school. Thus a quarter of those from the middle class went to a secondary modern or technical school compared with over two thirds of those whose fathers were semi or unskilled workers; and 45% of those of middle class origins went to an L.E.A. grammar school compared with only about one-third of the sons of manual workers, of whatever skill. Nearly a quarter of those of middle class background attended a direct grant or independent fee paying school: no son of a semi or unskilled worker did so. It is noticeable that sons of manual workers went disproportionately to technical schools.

EDUCATIONAL BACKGROUND AND QUALIFICATIONS

Educational qualifications before entry

The present minimum qualifications required for direct entry into the draughtsman class are, for the architectural and engineering draughtsman classes a satisfactory standard of technical knowledge (normally the possession of an appropriate O.N.C. or City and Guilds Technicians Certificate) and adequate practical

¹ This statement is not significant at 10% level, however, owing to the small numbers involved in the comparison.

Table 9.14: Draughtsman class and U.K. draughtsman¹: Social class origins (father's occupation) by school leaving age; and the draughtsman class: Social class origins by type of full-time school last attended

School leaving age	Draughtsman class					U.K. draughtsman ¹			
	I and II Higher and inter- mediate professional and managerial	III(i) Skilled non-manual	III(ii) Skilled manual	IV and V Semi and un- skilled	All ²	I and II Higher and inter- mediate professional and managerial	III(i) Skilled non-manual	III(ii) Skilled manual	IV and V Semi and un- skilled
14 and under	%	%	%	%	%	%	%	%	%
15	10	15	13	26	13	18	24	23	56
16 and over	14	20	39	16	39	82	76	77	44
Total	76	65	8	58	48	100	100	100	100
	100	100	100	100	100	(198)	(56)	(480)	(207)
									(941)
Type of school									
	I and II Higher and inter- mediate professional and managerial	III(i) Skilled non-manual	III(ii) Skilled manual	IV and V Semi and un- skilled	All ²	I and II Higher and inter- mediate professional and managerial	III(i) Skilled non-manual	III(ii) Skilled manual	IV and V Semi and un- skilled
Secondary modern or comprehensive	%	%	%	%	%	%	%	%	%
Technical	10	35	24	32	22				
L.E.A. grammar	14	20	30	37	26				
Direct grant, public school and other	45	40	34	32	37				
fee paying	23	5	9	—	11				
Schools abroad and other	8	—	3	—	4				
Total	100	100	100	100	100				
(N)	(49)	(20)	(100)	(19)	(196)				

¹ Dr. G. Routh, *loc. cit.*

² Includes staff of unidentifiable or unclassifiable social class origins of whom there were too few for separate analysis.

Table 9.15: *Draughtsman class: Highest and total educational qualifications obtained before entry into the Civil Service, and U.K. draughtsmen¹: Educational qualifications*

Educational qualification	Draughtsman class (before entering the Civil Service)		U.K. draughtsman ¹
	Total qualifications	Highest qualification	Total qualifications
	%	%	%
Membership of a professional institution	4	4	13
University diploma	1	1	
"A" level(s)	2	2	
Higher National Certificate/Higher School Certificate	7	6	33
"O" level(s)	37	29	
Ordinary National Certificate	11	7	36
City and Guilds certificates	4		
Royal Society of Arts examinations	4	19	4
Industrial apprenticeship	18		80
Other qualifications	10		
No qualification	33	33	*
Total	*	100	
(N)	(196)	(196)	(941)

¹ Dr. G. Routh, *loc. cit.*

* The total adds up to over 100 because many members possessed more than one qualification.

training (equivalent to an apprenticeship or pupillage lasting a minimum of three years and at least one year's full-time drawing office work); and for the cartographic and recording draughtsman and surveyor classes, three "O" levels at the draughtsman grade level. However, we find from Table 9.15 that one-third of the class possessed no qualifications on entry to the Civil Service; and that 13% possessed qualifications above the "O" level standard. Over a quarter experience or qualifications required by the architectural and engineering draughtsman classes, especially industrial apprenticeships or the O.N.C.

The draughtsman class is one of the poorest and least qualified of this survey. Only the clerical and technical works and lower male executive classes have equal or greater proportions unqualified on entry, and such a small proportion with "O" level(s), the O.N.C. or City and Guilds certificates as their highest qualification. Moreover, the technical works class contains a much greater proportion of staff with pre-entry industrial apprenticeships and qualifications above the "O" level standard. However, these facts must be considered along with figures on educational qualifications obtained *since* entry to the Civil Service. Eleven per cent of the draughtsman class *now* have qualifications above the "A" level standard if their highest qualification, *whenever* gained, is considered. It is thus unwise to assume that draughtsmen in general, whose total qualifications are also set out in Table 9.15, are very much better qualified than members of the draughtsman class.

Table 9.16: *Draughtsman class: Highest educational qualification obtained before entry into the Civil Service by year of permanent establishment to the Civil Service, initial tenure on appointment, and age*

Year of establishment	No qualification	University diploma, member of a professional institution, "A" level(s) and H.N.C./H.S.C.	"O" level(s)	All other qualifications	All
	%	%	%	%	%
Before 1940	8	13	4	10	8
(Appointed) 1940-45	23	8	9	10	14
1946 and after	9	79	87	80	78
Total	100	100	100	100	100
Initial tenure					
	%	%	%	%	%
Permanent	8	26	25	12	16
Temporary	92	74	75	88	84
Total	100	100	100	100	100
Age					
	%	%	%	%	%
Under 33	9	35	33	12	20
33-50	68	39	46	55	55
Over 50	23	26	21	33	26
Total	100	100	100	100	100
(N)	(65)	(23)	(57)	(51)	(196)

Table 9.16 cross-tabulates the highest pre-entry qualifications of members against their initial tenure and year of appointment, and against their age. We divided the draughtsman class into those with no qualifications on entry; those with qualifications beyond "O" levels; members with "O" levels (the minimum qualification for direct entry into these classes); and finally those with "other" qualifications which cover all the technical and craft qualifications or experience required as a minimum for the architectural and engineering draughtsman classes.

Those unqualified at entry form a disproportionately senior, elderly and initially unestablished group within the class. It also appears that war-time exigences resulted in increased recruitment of unqualified staff. The small minority with post "O" level qualifications are, like their colleagues with "O" levels, younger than average; both these groups were disproportionately established on entry. Once again, it must be emphasised that the figures do *not* prove that there has been a recent trend in the recruitment of those with "O" levels and higher qualifications into the draughtsman class. The figures do not

Table 9.17: *Draughtsman class: Highest educational qualification obtained before entry into the Civil Service by type of full-time school last attended and by school leaving age*

Type of school	No qualification	University diploma, membership of a professional institution, "A" level(s), H.N.C./H.S.C.	"O" level(s)	All other qualifications	All
	%	%	%	%	%
Secondary modern or comprehensive	37	9	6	43	26
Technical	26	13	17	28	22
L.E.A. grammar	22	65	61	17	37
Direct grant, public school and other fee paying	10	13	14	8	11
Schools abroad and other	6	—	2	4	4
Total	100	100	100	100	100
School leaving age					
	%	%	%	%	%
14 and under	11	4	—	35	13
15	38	26	11	42	29
16 and over	51	70	89	23	58
Total	100	100	100	100	100
(N)	(65)	(23)	(57)	(51)	(196)

include similarly qualified ex-members who have since been promoted into the professional works group. However, they do partly reflect the growing number of qualified school leavers over the years, and serve to consolidate the initial categorisation of groups within the class made on pp. 277-79. The categorisation assumes some correlation between selective schooling, and a late school leaving age and high educational qualifications on entry. Table 9.17 indicates the division between those with "O" level qualifications and above, on the one hand, and those with "other" technical and craft qualifications or no qualifications at entry, on the other. The former group, not surprisingly, tend to be the products of L.E.A. grammar schools although over a fifth went to non-selective schools. The latter come disproportionately from secondary modern and technical schools and their past equivalents (71% and 63% of them respectively compared with 48% of the whole class). Similarly, 70% and 89% of those with post "O" level qualifications and "O" level(s) left school at sixteen or later compared with 58% of the whole class, 51% of the unqualified and only 23% of those with "other" qualifications. Thirty five per cent of the latter left school at fourteen as against only 13% of the whole class.

At this point we may sum up very briefly the more important points made in this chapter:

Table 9.18: *Draughtsman class and U.K. draughtsmen¹: School leaving age*

School leaving age	Draughtsman class	U.K. draughtsmen ¹
	%	%
13 and under	1	} 22
14	13	
15	29	
16	32	
17	18	} 28
18	6	
19 and over	2	
Total	100	100
(N)	(196)	(941)
Average school leaving age	16.13 years	X

¹ Dr. G. Routh, *loc. cit.*

- (1) The younger and most recent recruits of the *present* class have disproportionately entered the Civil Service via the open and "other" competitions (Table 9.3).
- (2) Staff who took the open and "other" competitions are more likely than average to have post "O" level and "O" level qualifications; to have attended an L.E.A. grammar school; and to have left school at seventeen or later (Tables 9.4 and 9.5). This is only partly a reflection of the educational qualifications required for entering the open and "other" competitions.
- (3) Staff with "O" level and higher qualifications on entry are younger and more recently recruited than average (Table 9.16). They are more likely than average to have attended an L.E.A. grammar school and to have left school at sixteen or later (Table 9.17).

When we examine type of school attended and school leaving age we are therefore likely to find that the younger, more recent Civil Service recruits now in the draughtsman class are disproportionately grammar school pupils who stayed at school at least until sixteen. We shall then have built up a profile of the social and educational background, and channels of entry, of *present* members and of groups among them.

School leaving age and school attended

The median and average school leaving age of the draughtsman class is sixteen, at which age about a third of the class actually left school (Table 9.18). Although, on the whole, the technical classes have a lower school leaving age than the desk and scientific classes, it is comparatively high for a subordinate class; a smaller proportion left school at fifteen or earlier than of the male clerical, technical works or lower executive sample groups. On the other hand, the school leaving age is lower than that of draughtsmen in general. Whereas three-quarters of the class left school at sixteen or earlier, only a half of the draughtsmen outside the Civil Service did so.

Table 9.19: *Draughtsman class: School leaving age by year of permanent establishment to the Civil Service, initial tenure on appointment, and age*

Year of establishment	Left school aged			All
	14 and under	15	16 and over	
	%	%	%	%
Before 1940	12	11	5	8
(Appointed) 1940-45	15	18	12	14
1946 and after	73	71	83	78
Total	100	100	100	100
Initial tenure				
	%	%	%	%
Permanent	8	11	20	16
Temporary	92	89	80	84
Total	100	100	100	100
Age				
	%	%	%	%
Under 33	—	18	26	20
33-50	62	56	52	55
Over 50	38	26	22	26
Total	100	100	100	100
(N)	(26)	(57)	(113)	(196)

Table 9.19 confirms that the later their school leaving age the younger members are, and the more likely they were to be initially established on appointment. The important division is between those who left school at fifteen or earlier, and those who stayed on until sixteen or later. For example, 26% of the latter are under thirty-three compared with none of the former.

About one-third of the class went to an L.E.A. grammar school and only negligible proportions were educated in the private sector (Table 9.20). Only male members of the clerical and technical works class are educated to the same extent in non-selective secondary schools. Nevertheless, the younger sector of the class is still educationally privileged (Table 9.21). The important difference between the draughtsmen under thirty-three and the national school population in 1955 is that twice as many of the former went to grammar schools and left school at sixteen or later.

The minority who were educated in the private or semi-private sector are mainly found among the older, earlier recruited members of the class: only two-thirds of them were established in the Civil Service after 1945 compared with 78% of the whole class (Table 9.22); and they probably constitute a dwindling proportion of recent direct entrants.

To complete the picture, Table 9.23 cross-tabulates type of school against school leaving age for the draughtsman class. There is a strong correlation

Table 9.20: *Draughtsman class: Type of full-time school last attended*

Type of school	
	%
Secondary modern	22
Comprehensive	1
Technical	26
L.E.A. grammar	37
Direct grant	5
Public school and other fee paying	5
Schools abroad and other	4
Total	100
(N)	(196)

Table 9.21: *Draughtsman class, aged 16-32, and the England and Wales male school population, 1955:¹ School leaving age and type of full-time school last attended*

School leaving age	Draughtsman class, aged 16-32	England and Wales male school population, 1955 ¹
	%	%
15	26	63
16	30	20
17 and over	44	17
Total	100	100
Type of school		
	%	%
Secondary modern and comprehensive	25	54
Technical	16	3
L.E.A. grammar	46	23
Direct grant, public school and other fee paying	10	15
Schools abroad and other	3	5
Total	100	100
(N)	(39)	

¹ Calculated from figures on pp. 18, 19, 32 of *Statistics of Education, 1966, Volume I*, Department of Education and Science, H.M.S.O., London, 1967.

between a late school leaving age and attendance at an L.E.A. grammar school or more selective school. This is a national phenomenon merely reflected in the draughtsman class, taking into account that some were at school before the statutory minimum school leaving age was raised to fifteen. Thus 42% of those who went to a secondary modern school left at fifteen compared with 13% of the whole class; at the other extreme 82% of those who went to an L.E.A.

Table 9.22: *Draughtsman class: Type of full-time school last attended by year of permanent establishment to the Civil Service, initial tenure on appointment, and age*

Year of establishment	Secondary modern and comprehensive	Technical	L.E.A. grammar	Direct grant, public school and other fee paying	All ¹
	%	%	%	%	%
Before 1940	5	8	5	14	8
(Appointed) 1940-5	16	16	11	19	14
1946 and after	79	76	84	67	78
Total	100	100	100	100	100
Initial tenure					
	%	%	%	%	%
Permanent	7	8	25	19	16
Temporary	93	92	75	81	84
Total	100	100	100	100	100
Age					
	%	%	%	%	%
Under 33	21	12	25	19	20
33-50	53	61	55	52	55
Over 50	26	27	21	29	26
Total	100	100	100	100	100
(N)	(43)	(51)	(73)	(21)	(196)

¹ Includes staff who attended "other" schools of whom there were too few for separate analysis.

grammar school stayed on until sixteen or later compared with 58% of the whole class. It is significant that this is a *higher* proportion than for the minority who went to independent fee paying and direct grant schools (71%) indicating that the type of school providing the draughtsman class with its better educated staff is the L.E.A. grammar school.

OCCUPATIONAL EXPERIENCE

Previous field of employment

Although there exist the routine and training grades of cartographical assistant and drawing office assistant, only a limited proportion of the class enter at this grade. Moreover, at least three years with a good class firm or organisation and one year in full-time drawing office work is required for establishment into the architectural and engineering draughtsman classes, so a substantial proportion of the whole draughtsman class may be expected to have worked at one time outside the Civil Service.

Just over one-third of the class have been employed only in the Civil Service (Table 9.24); a higher proportion (44%) have worked in industry or commerce, and at least another quarter in various fields of employment, particularly the

Table 9.23: *Draughtsman class: Type of full-time school last attended by school leaving age*

School leaving age	Secondary modern and comprehensive	Technical	L.E.A. grammar	Direct grant, public school and other fee paying	All ¹
	%	%	%	%	%
Under 15	42	4	5	—	13
15	42	43	13	29	29
16 and over	16	53	82	71	58
Total	100	100	100	100	100
(N)	(43)	(51)	(73)	(21)	(196)

¹ Includes staff who attended "other" schools of whom there were too few for separate analysis.

Table 9.24: *Draughtsman class: Year of permanent establishment and age by field of employment before joining the Civil Service*

Field of employment	All	Established			Aged		
		Before 1940	(Appointed) 1940-5	1946 and after	Under 33	33-50	Over 50
	%	%	%	%	%	%	%
None	37	40	63	32	49	43	16
Industry	40	33	33	47	36	41	58
Commerce	8	—	—	1	—	1	2
Education	1	7	7	3	3	3	6
Local government	4						
Armed forces and local uniformed services	8	13	4	8	3	8	12
Other	16	13	4	18	13	12	26
(N) ¹	(196)	(15)	(27)	(154)	(39)	(107)	(50)

¹ Totals add up to over 100 because some members were previously employed in more than one field.

armed forces or the local uniformed services. In general, the lower a class's authority and the higher its proportion of technically qualified recruits, the smaller its proportion of staff with no occupational experience outside the Civil Service. In this context there is a surprisingly large segment recruited straight from school and now in the draughtsman class, smaller only than that in the scientific assistant class, among all the subordinate and technical classes.

Younger members are the least likely to have previously worked outside the Civil Service (Table 9.24). This does *not* necessarily mean however, that the more recent *recruits* are the most likely to be entrants direct from school. The proportion of the class first established to the Civil Service after the war with previous employment elsewhere, especially in industry, commerce or "other"

Table 9.25: *Draughtsman class: Highest and total educational qualifications obtained after entry into Civil Service*

Qualification after entry	Total qualifications	Highest qualification
	%	%
Membership of a professional institution	8	8
University diploma	1	
Higher National Certificate/Diploma	18	
Higher School Certificate	1	21
Ordinary National Certificate/Diploma	24	
"O" level(s)	5	
City and Guilds certificates	5	14
Royal Society of Arts examinations	1	
Industrial apprenticeship	18	
Other qualifications	12	56
No qualification	56	
Total	*	100
(N)	(196)	(196)

* The total adds up to over 100 because many members obtained more than one qualification after joining the Civil Service.

fields is *higher* than among those established before 1940 or appointed in wartime.

Educational qualifications after entry

Forty-four per cent of the draughtsman class have obtained some kind of educational qualification since joining the Civil Service (Table 9.25). All the technical classes have a comparatively high proportion of members who gained qualifications whilst in the Civil Service and the proportion of the draughtsman class is higher than that of their colleagues in the subordinate desk and scientific classes. It is, however, lower than that in the technical works class and professional works group. The most usual course for draughtsmen is to work for the Ordinary or Higher National Certificate or follow an industrial apprenticeship. No class surveyed has greater proportions obtaining these types of qualifications or experience after joining the Civil Service. Eight per cent of the class even managed to become professionally qualified whilst working for the Civil Service. Staff who took examinations during service collected an average of two different qualifications. Of course, this figure does not cover the numbers who were unsuccessful in their examinations (Table 9.25).

The few who gained some sort of professional qualifications (i.e. membership of a professional institution or university diploma) after entry and those who gained no qualifications at all, are those who were best qualified before joining the Civil Service (Table 9.26). A greater proportion of these two groups than of the class as a whole possessed a post "O" level qualification, and a small proportion of the same two groups than of the whole class, were initially unqualified. It is those members who gained a Higher National Certificate or Diploma or "other" qualification during their Civil Service career who were the worst qualified before entry (and disproportionately established before the

Table 9.26: *Draughtsman class: Highest educational qualification obtained after entry into the Civil Service by the highest educational qualification obtained before entry into the Civil Service and by type of full-time school last attended*

Highest qualification before entry	Obtained as highest qualification after entry				
	Membership of a professional institution or university diploma	H.N.C./H.S.C. H.N.D. O.N.C./O.N.D.	All other qualifications	No qualification	All
	%	%	%	%	%
Membership of a professional institution, univ. diploma					
“A” level(s), Higher National/School Certificate	18	—	4	17	13
“O” level(s)	25	17	11	39	29
All other qualifications	32	21	46	22	26
No qualification	25	62	39	22	33
Total	100	100	100	100	100
Type of school					
	%	%	%	%	%
Secondary modern	13	36	27	17	22
Technical	38	33	38	19	26
L.E.A. grammar	38	24	21	46	37
Direct grant, public school and other fee paying	6	5	7	14	11
Schools abroad and other	6	2	7	3	4
Total	100	100	100	100	100
(N)	(16)	(42)	(28)	(110)	(196)

war). More were unqualified on joining the Civil Service and a smaller proportion possessed “O” level(s) or above than in the class as a whole. Thus the draughtsman class is one of the minority of classes in our survey where there is clear evidence that substantial numbers of successful but initially unqualified (or poorly qualified) candidates have worked for qualifications whilst in the Civil Service. In most other classes it is these who are well qualified on joining the Civil Service who gain further high qualifications after entry.

It is perhaps understandable that those who gained a Higher National Certificate or Diploma type of qualification after entry were likely to have attended a secondary modern or technical school, whereas the few who gained professional or university qualifications or “A” level(s) and the many who did not obtain any qualifications in the Civil Service, whom we already know as the better qualified before entry, went disproportionately to L.E.A. grammar schools. Thus the acquisition of all but professional and university qualifications whilst working for the Civil Service is concentrated not only among the worst qualified entrants but also among those with a relatively minimal school education.

Two other attributes of this particular group (i.e. the worst qualified entrants) should be mentioned. They were disproportionately the sons of skilled manual workers (60% of them compared with 51% of the whole class) and they were more likely than average to have had no job outside the Civil Service (Table 9.27). There thus exists a pattern of educational advancement for those leaving secondary modern or technical school or their past equivalents at fifteen or earlier, with poor or no qualifications, but who on leaving school joined the Civil Service immediately. They have used the opportunity within the Civil Service to match the better qualifications of those who came in from industry or other fields, from more selective schools and higher social classes.

Table 9.27: *Draughtsman class: Field of employment before joining the Civil Service by highest educational qualification obtained after entry into the Civil Service*

Highest qualification after entry	No previous employment	Previously employed in		All
		Industry or commerce	Other fields	
	%	%	%	%
Membership of a professional institution, university diploma, "A" level(s), Higher National/School Certificate	7	13	16	13
"O" level(s)	37	21	25	29
All other qualifications	6	42	34	26
No qualification	49	24	25	33
Total	100	100	100	100
(N) ¹	(73)	(87)	(56)	(196)

¹ Total (N)'s add up to over 196 because some members were previously employed in more than one field.

PROFESSIONAL AND LEISURE ACTIVITY

Voluntary associations

The proportions of the draughtsman class who are nominal or active members of various types of voluntary organisations can be seen from Table 9.28. Compared with other subordinate classes and the population at large it contains a very high proportion of "joiners" who participate in a high *average number* of different types of outside organisation. Indeed, the proportion actively helping to run outside bodies is as high as in any other Civil Service class except the professional works group, and the percentage helping to run non-professional work-connected associations (staff associations, staff sports clubs, etc.) and social or leisure clubs, is the highest of all the Civil Service classes surveyed.

With the exception of place of work no background factor appeared to have an important effect on the proportions belonging to different organisations. But a few incidental points of interest may be mentioned briefly. The very small minority who were not even nominal members of any organisation tended to be older bachelors with a poor education. On the other hand, nominal members of a professional association connected with their work were disproportionately well-educated, i.e. late school leavers with post "O" level qualifications, and from middle class or white collar (social class III (i)) backgrounds. The nominal members of religious and Church-sponsored associations were, predictably, disproportionately married men, well qualified, from middle class backgrounds, and older than average. Those who belonged to "civic" organisations (i.e. tenants' and ratepayers' associations, parent-teacher associations, community centres, etc.) were, as in every other Civil Service class so far examined, almost exclusively married men aged between thirty-three and fifty.

Working in London appears to discourage participation in outside organisations (but not nominal membership) except for professional institutions, which might well hold meetings and conferences in London anyway (Table 9.29).

Table 9.28: *Draughtsman class and local government electors:*¹ *Nominal and active membership of organisations and voluntary associations*

Type of organisation	Draughtsman class		Local government electors ¹
	Nominal members	Active members	Nominal members
	%	%	%
None	5	49	X
Professional bodies connected with work	16	1	} 27
Other associations connected with work	55 } 70	22	
Clubs and societies connected with social and leisure activities	75	21	} 30
Religious and church-connected associations	15	10	
Civic groups	25	4	7
Associations connected with education and training	14	7	5
Public bodies	2	1	1
Associations connected with welfare	2	2	3
Any other associations, societies, etc.	14	4	X
(N) ²	(196)	(196)	(X)

¹ M. Horton, *op. cit.*² Totals add up to over 100 because some members were nominal and active members of more than one type of voluntary association.Table 9.29: *Draughtsman class: Nominal and active membership of organisations and voluntary associations by location*

Location	Nominal members of				Active members of			All
	No. association etc.	Professional bodies connected with work	Other associations connected with work	All other associations etc.	No association etc.	Associations connected with work (including professional bodies)	All other associations etc.	
	%	%	%	%	%	%	%	%
Inner and Outer London	60	32	23	23	34	20	18	27
All provinces	40	68	77	77	67	80	82	73
Total	100	100	100	100	100	100	100	100
(N) ¹	(10)	(32)	(129)	(281)	(96)	(46)	(89)	(196)

¹ Total (N)'s of nominal membership and of active membership add up to over 196 because many staff are nominal and active members of more than one type of outside organisation.

Otherwise, presumably the long hours commuting between home and work in London prevent staff from belonging to outside organisations. They have not the time and they are too tired. It may be presumed therefore, that the minority of those in the two higher grades tend to have less time than their colleagues for active work on behalf of voluntary associations except, it must be emphasised, for professional contacts and meetings.

Table 9.30: Draughtsman class and adult population of Great Britain in 1963: Readership of daily and Sunday newspapers

Daily newspaper	Draughtsman class	Great Britain adult population 1963 ¹	
		Men	Men and women in the junior professions with a T.E.A. of 15 or under
	%	%	%
Times	3	3	2
Guardian	5	3	2
Daily Telegraph	33	9	9
Daily Express	35	38	41
Daily Mail	24	19	21
Sun ²	4	16	8
Daily Mirror	19	41	32
Daily Sketch	4	10	8
None	5		
Sunday newspaper			
	%	%	%
Sunday Times	21	9	9
Observer	15	5	3
Sunday Telegraph	13	6	5
Sunday Express	44	29	37
News of the World	13	44	2
Sunday Mirror	19	36	39
Sunday Citizen	2	2	35
People	18	43	31
None	19		
(N) ³	(196)	(7,537)	(1,987)

¹ M. Abrams, *Education, social class and reading of newspapers and magazines*, pp. 14, 18, 19.

² The *Daily Herald* for columns 2 and 3. Little change in the readership for the *Sun* is likely.

³ Totals add up to over 100 because many members read more than one daily or Sunday newspaper.

Readership of daily and weekly press

The typical member of the draughtsman class follows the middlebrow habits of staff in other subordinate classes by regularly reading the *Daily Express* (35%), *Daily Telegraph* (33%), or *Daily Mail* (24%), and on Sundays, the *Sunday Express* (44%), (Table 9.30). Other newspapers have smaller readerships which are also different in age and education from the class as a whole. Nevertheless, large minorities read both the serious and tabloid press. Over a third regularly read a serious daily or Sunday newspaper, a proportion far higher than that of both adult men and adults of a similar social class and school leaving age, in the population at large. *Daily Telegraph* readers (as in most Civil Service classes) are particularly over-represented among the draughts-men. About a quarter usually read a daily or Sunday tabloid, a figure considerably smaller than that among the two national samples cited above. The *Sun*,

Table 9.31: *Draughtsman class: Readership of daily and Sunday newspapers by age and highest educational qualification obtained before entry into Civil Service*

Age	Times/ Guardian	Daily Telegraph	Daily Express/ Daily Mail/ Sun	Daily Sketch/ Daily Mirror	Sunday Times/ Observer	Sunday Telegraph	Sunday Express	Sunday Citizen/ People/ Sunday Mirror/ News of the World	All
	%	%	%	%	%	%	%	%	%
Under 33	7	18	24	26	22	19	17	25	20
33-50	57	52	49	49	58	42	52	53	55
Over 50	36	29	27	26	19	38	31	22	26
Total	100	100	100	100	100	100	100	100	100
Highest qualification before entry	%	%	%	%	%	%	%	%	%
University diploma, membership of a professional institution, "A" levels, H.N.C., H.N.D.	28	11	12	14	17	8	12	9	13
"O" level(s)	29	32	30	26	33	35	28	29	29
All other qualifications	28	26	25	21	16	35	26	29	26
No qualification	14	31	33	40	33	22	34	33	33
Total	100	100	100	100	100	100	100	100	100
(N) ¹	(14)	(65)	(114)	(43)	(67)	(26)	(81)	(55)	(196)

¹ Total (N)'s for daily and Sunday newspaper readers add up to over 196 because many members read more than one daily or Sunday newspaper.

Table 9.32: *Draughtsman class:
Readership of weekly periodicals*

Periodical	
None	81
Economist	2
New Statesman	5
Spectator	2
New Society	1
Statist	1
Listener	6
Times Educational Supplement	4
Times Literary Supplement	3
(N) ¹	(196)

¹ The total adds up to over 100 because some members read more than one periodical.

Sunday Citizen and *Daily Sketch* are hardly read at all in the class. Although the political views of a newspaper are often remote from those of its regular subscribers, it is interesting to reflect that it is the indisputably right-wing press which is nationally over-represented in this class.

Readers of the *Daily Telegraph* and of the middlebrow papers (the *Daily Express*, *Sun* and *Daily Mail*) are typical of the whole class in age and educational qualifications but readers of the *Guardian* and *Times* are older than average (only 7% of them are under thirty-three compared with 20% of the whole class) and also along with readers of the serious Sunday newspapers (the *Observer* and the *Sunday Times*) relatively better qualified (Table 9.31). Fifty-seven per cent and 50% of their readers respectively possess "O" level(s) or above compared with 42% of the whole class. Readers of the tabloid daily and Sunday newspapers, on the other hand, are slightly young for the class (26% and 25% of them being under thirty-three compared with 20% of the class) and in the case of the daily tabloids worse qualified than average. Altogether age and education appear to be more important determinants of daily than Sunday newspaper reading; but then, the difference between Sunday papers are less in terms of "seriousness" than in the case of daily papers. However, qualifications are not the only dimension of educational background, and the latter is not the only important aspect of social background; the readership of different newspapers does not divide very strongly according to type of school attended, or social class origin, nor in the direction we might expect from Table 9.30.

As many as 19% of the class read at least one of the listed periodicals (Table 9.32) which do not include any journal specifically for draughtsmen. Of those that do read a periodical, the *Listener* is most popular (as for all subordinate classes) followed by the *New Statesman*, but in fact there is a very even and thin distribution over all the periodicals mentioned. It is perhaps more interesting that a greater proportion read at least one of the "cultural" rather than "current affairs" journals. The minority who read any of the journals are older than average (50% being over fifty compared with 26% of the whole class), disproportionately working class in background (83% of them compared with 71% of the whole class) and more likely than average to be regular readers of the *Guardian* or *Times* of whom 57% read at least one periodical compared with 19% of the whole class.

Chapter X

The Scientific Officer Class

THE CLASS

Function

The scientific officer class is the senior of the three scientific classes. Its salary range and minimum educational requirements for entry are the highest of all the scientific, technical and professional classes in the Civil Service and parallel those of the administrative class.¹ Staff who reach the top grades have an important advisory role in the formulation of national policy—though for the most part subordinate to the administrative class.² Also in contrast to the administrative class, neither in theory nor practice does the class form a pool of staff interchanging between departments. It consists rather of a number of departmental and establishment sub-sections within which promotion takes place. In general, the scientific officer class bears the main responsibility for the scientific activities of all departments, covering practically every field of pure and applied science. More specifically its duties may be distinguished as

- (i) advising departments on any specific aspect of their work;
- (ii) undertaking fundamental research;
- (iii) developing the results of research;
- (iv) carrying out the inspectorate duties deriving from the statutory responsibilities of departments;
- (v) the supervision of research and development projects being undertaken by outside contractors; and
- (vi) the management and administration of scientific establishments.

The class does not include scientific staff working for government corporations, research councils or the patent service.

Salary, tenure and grades

The class numbered on 1st April, 1967 rather more than 4,000, which is small, but larger than the administrative class (2,498). Table 10.1 sets out the salary range, tenure and numbers of its component grades, as well as the distribution of men and women among permanent staff only. One sample group of 206 was drawn from the grades of senior principal officer and above, and is called the "upper grades" or "upper scientific officers". The upper grades constitute 20% of the class, earning between £3,500 and £9,590 per annum, undertaking individual research work or the direction and administration of scientific work carried out by more junior members of the class or by staff in supporting scientific classes.

¹ *Report of the Management Consultancy Group* concluded that "the scientific officer class occupied a highly privileged position", p. 46.

² For details of the essentially subordinate position of the scientific officer class to the administrative class, see *Report of the Management Consultancy Group*, pp. 65-69.

Table 10.1: Scientific officer class: Grade, by tenure, sex and salary

	Posts above chief scientific officer	Chief scientific officer	Deputy chief scientific officer	Senior principal scientific officer	Principal scientific officer	Senior scientific officer	Scientific officer	All
% of class ¹	% 1	% 1	% 4	% 14	% 39	% 28	% 14	% 100
% permanent ¹	96	96	97	97	93	77	41	82
% male ²	100	100	100	99	98	96	96	97
Salary	£5,295-£9,500	£5,000 and £5,250	£4,175-£4,625	£3,500-£4,000	£2,250-£3,107	£1,744-£2,155	£926-£1,574	
(N) ³	(25)	(57)	(162)	(565)	(1,578)	(1,124)	(552)	(4,063)

¹ Calculated from H.M. Treasury, *Introductory Factual Memorandum on the Civil Service*, p. 134.² These figures were provided by the Central Staff Record and refer to permanent staff only in November, 1966.³ Permanent and temporary staff, on 1st April, 1967.

All but 3%–4% of the upper grades are permanent and they are virtually all men. The second sample group of 197 is taken from the remaining grades of principal scientific officer and below, who form the bulk of the class (80%) and carry out the scientific work itself. Their salary starts at £926 per annum and can exceed £3,000. A far higher proportion are temporaries (59% of the bottom grade of scientific officer) but the proportion of women is still negligible (3%–4%) although higher than in the upper grades. This sample group is referred to as the "lower grades" or "lower scientific officers". A third composite sample group, weighted appropriately to be representative of the whole class, is also used.

The average salary of the whole class works out as £2,716 per annum¹ compared with an average of £3,631¹ for the administrative class. This is because although the salary ranges for the scientific officer and administrative classes are approximately the same, there are proportionately more senior grade posts in the latter. The scientific officer class is more "bottom heavy". Thus 15% of the administrative class earn £5,250 per annum or over compared with 2% of the scientific officer class. Eleven per cent of university teachers in natural science faculties are professors and therefore may be assumed to be earning at least £4,000 per annum, excluding supplementary earnings.² This proportion compares with 6% of the scientific officer class³.

Eighteen per cent of the whole class are at present temporary, a higher proportion than for its desk equivalent, the administrative class. Both a recruitment problem and a policy are reflected here. There has been a shortfall in recruitment to permanent posts of some 10% each year since 1960⁴ and, on the other hand, initially temporary service is a regular part of recruitment by departments to the scientific officer class. About two-thirds of the successful candidates for admission to the two lowest grades are already temporary civil servants⁵ and the proportion of the whole class who were recruited to the Civil Service initially on a temporary basis is also two-thirds (no table). Entry into the Civil Service by initially temporary appointment seems to be a feature peculiar to the scientific and technical classes, compared with the desk classes of equivalent authority. At the same time, however, the higher the authority and responsibility of a class, whether desk or not, the smaller the proportion who first joined the Civil Service as temporaries. Thus the proportion of initially temporary staff is higher in the experimental officer and scientific officer classes.

In the whole class only 3% are women, about the same proportion as in the Institute of Physics and the Physical Society, and in the Royal Institute of Chemistry,⁶ but less than the proportion of academic staff in university natural science faculties (9%).⁷

¹ Calculated from figures on pp. 52, 55 of *Civil Service Estimates 1967/68*.

² A. H. Halsey and M. Trow, *British Academics*, Faber & Faber (forthcoming).

³ It is difficult to make a comparison with scientists in industry. However, in his research monograph published by the Institute of Economic Affairs "*The Economic Consequences of the Professions*" D. S. Lees calculates that the average salary of a graduate in industry between the ages of thirty and sixty-five was £2,575 in 1964, which is slightly less than for scientific officers three years later, though it refers to what is probably a somewhat younger age group.

⁴ H.M. Treasury, *Introductory Factual Memorandum on the Civil Service*, p. 137.

⁵ *Ibid.*, p. 136.

⁶ Viola Klein, "The demand for professional womanpower", *British Journal of Sociology*, Vol. XVII, 1966, p. 187.

⁷ *Report of the Committee on Higher Education (Robbins Report)*, Appendix Three, p. 172, H.M.S.O., Cmnd. 2154—III, London, October 1963.

Length of service

Forty per cent of the upper grades were first appointed to the Civil Service before the war, a quarter are war-time appointees, and another third first joined the Civil Service after 1945 (Table 10.2). However, only a quarter were *established* before the war, over half being established in the immediate post-war period of 1946–49, a reflection of the large influx of temporary scientists into central administration during the war. In the lower grades all but 6% were established in the Civil Service after the war and one-third have been established since 1960. But 28% were first appointed before 1945 even though they remain in the lower grades. Some are promotees from the experimental officer and scientific assistant classes, others relative failures among the direct entrants. The figure of 28% also reflects the “bottom heavy” structure of the class, compared with, for example, the administrative class. An interesting discrepancy between the age, length of establishment in the Civil Service, and grade of members of the class, also reflects this paucity of upper grade posts. Among those established to the Civil Service before the war, or appointed during it, a slightly higher proportion of those aged thirty-three to fifty (88%) are now in the upper grades than those aged over fifty (80%). There are, naturally, several other contributory factors to this discrepancy, for example the higher proportion of deaths, retirements, resignations and transfers among those established before or appointed during the war who would have been over fifty if still in the class.

Method of permanent establishment to the Civil Service

Recruitment to the scientific officer class is either directly by continuous open competition in the form of an interview plus references, or indirectly by the departmental promotion of members of the experimental officer class aged at least thirty-one. Staff in the latter class under thirty-one may not be promoted departmentally but have the opportunity to take the continuous open competition. This is similar to the situation in Sweden and Germany but unlike that in France, where recruits for senior scientific Civil Service posts have long formal training and have to take written examinations, or Australia, where cadet specialists are recruited straight from school, taking a sandwich course between the Civil Service and the universities.

As shown in Table 10.3, open competition has only been the major avenue of established recruitment to the Civil Service for the lower grades where 67% entered this way. By comparison only 34% of the present members of the upper grades were recruited to the Civil Service by open competition and nearly as many are nominees (30%)¹ while a quarter entered initially through the post-war reconstruction competitions. Post-war reconstruction competitions (by definition), limited competitions (which have now ceased for the scientific officer class) and nomination account preponderantly for the older, longer established members of the class and open competition was the almost exclusive method of establishment for the younger, more recent recruits. Tables 10.3, 10.4 and 10.5 give the details. Ninety per cent or over of those direct entrants permanently established to the Civil Service by nomination

¹ Most nominees have held temporary appointments in the experimental officer or scientific assistant classes; some were promoted to the scientific officer class at the same time.

Table 10.2: Scientific officer class: Initial tenure on appointment by year of appointment and year of permanent establishment to the Civil Service

Year	Upper grades						Lower grades			
	Initially temporary			Initially permanent			Initially temporary		Initially permanent	
	Appointed	Established		Appointed and established	Appointed	Established	Appointed	Established	Appointed and established	All (whichever initial tenure)
	%	%	%	%	%	%	%	%	%	%
1920-29	9	33	5	38	40	11	2	11	4	1
1930-39	33		22				19			5
1940-45	39				26		20			
1946-49	7		54				6			32
1950-59	11	67	14	62	34	89	31		96	28
1960-66	2		5				22			34
Total	100	100	100	100	100	100	100	100	100	100
(N)	(138)	(138)	(68)	(206)	(206)	(127)	(70)	(197)	(197)	(197)

Table 10.3: *Scientific officer class: Method of permanent establishment to the Civil Service*

Method of permanent establishment	Upper grades	Lower grades	All ¹	Direct entrants	Promotees
	%	%	%	%	%
Open competition	34	67	60	64	40
Post-war reconstruction competition	24	18	19	17	28
Nomination	30	10	15	12	22
Limited competition	9	3	4	4	4
Other	2	3	3	2	6
Total	100	100	100	100	100
(N)	(206)	(197)	(403)	(325)	(63)

¹ Includes transfers of whom there were too few (N=15) for separate analysis.

Table 10.4: *Direct entrants into the scientific officer class: Method of permanent establishment by year of permanent establishment*

Year of establishment	Established to the Civil Service by			All ¹
	Open competition	Post-war reconstruction competition	Nomination	
	%	%	%	%
Before 1940	6	3	36	10
(Appointed) 1940-45	2	49	46	18
1946-50	11	47	9	18
1951-55	17	—	3	12
1956-60	22	1	3	14
1960 and after	42	—	4	28
Total	100	100	100	100
(N)	(210)	(58)	(41)	(325)

¹ Includes direct entrants established to the Civil Service by limited or other competitions, of whom there were too few for separate analysis.

or post-war reconstruction competitions, were established before 1950 compared with 19% of the open competition recruits and 46% of all direct entrants to the class. Thirty-three per cent of the open competition recruits are under thirty-three and only 10% over fifty compared with only 3% of the nominees who are under thirty-three and 82% who are over fifty. Part of the explanation for the latter's greater age and longer service lies in the disproportionate number of promotees nominated into the established posts, or established via the post-war reconstruction competitions. Fifty per cent of them permanently entered the Civil Service by these methods compared with 29% of the direct entrants (Table 10.3). Moreover, nomination is a more common method of permanent establishment for members of the experimental officer class. (See Chapter XI, p. 346.)

Table 10.5: *Scientific officer class: Method of permanent establishment to the Civil Service*

Age	Open competition	Post-war reconstruction competition	Nomination	Limited competition	All ¹
	%	%	%	%	%
Under 33	33	—	3	—	21
33–50	58	83	15	3	54
Over 50	10	17	82	97	26
Total	100	100	100	100	100
(N)	(203)	(85)	(82)	(24)	(403)

¹ Including the few staff established in the Civil Service by "other" methods.

Table 10.6: *Scientific officer class: Location*

Location	Upper grades	Lower grades	All
	%	%	%
Inner London	29	15	17
Outer London	13	15	15
North	1	3	3
Rest of England and Wales	52	62	60
Scotland	4	5	5
Total	100	100	100
(N)	(206)	(197)	(403)

Location

The geographical location of the scientific officer class is set out in Table 10.6. As with all the scientific officer and technical classes there is a concentration in the South (over half the class) especially among the lower grades. Among the upper grades more work in inner London, presumably in administrative rather than laboratory work. Only a negligible proportion work in the North.

There is again evidence of local recruitment, although perhaps not to the same extent as among the desk classes (Table 10.7). For example, 40% of those who work in London were born in the South East or in London compared with 26% of the whole class.

The relation between location and method of permanent establishment is shown in Table 10.8. There is a disproportionate number of nominees among those who work in inner London, which is due to the higher average age of the administrator-scientists who work in the central ministries and the relatively large number of young staff who work in laboratories and establishments in outer London. The figures in Table 10.8 also indicate that nominees are exceptionally old for the class and open competition recruits are disproportionately young.

Table 10.7: *Scientific officer class: Location by place of birth*

Place of birth	Located in		All ¹
	Inner and Outer London	Rest of England and Wales, and Scotland	
	%	%	%
North	24	29	27
London and South East	40	21	26
Rest of South and Midlands	19	25	23
Wales, Scotland and Northern Ireland	13	22	19
Abroad	4	3	4
Total	100	100	100
(N)	(144)	(250)	(403)

¹ Including nine members located in the North.

Table 10.8: *Scientific officer class: Location by method of permanent establishment to the Civil Service*

Method of permanent establishment	Located in		All ¹
	Inner and Outer London	Rest of England and Wales, and Scotland	
	%	%	%
Open competition	53	61	60
Post-war reconstruction competition	17	20	19
Nomination	21	12	15
Limited competition	6	3	4
Other	3	3	3
Total	100	100	100
(N)	(144)	(250)	(403)

¹ Includes nine members located in the North.

Departmental distribution

Not surprisingly, the great majority of the class work in research establishments attached to the "technical" ministries (particularly the Ministries of Defence and Technology) although 15% are distributed among other types of department (Table 10.9).

This, however, in no way denotes a different type of function but is the result of our categorisation of departments. There are some staff in economic ministries, mostly in the Ministry of Agriculture, Fisheries and Food, who conduct research into, for example, animal and plant diseases. Similarly, scientists in the social departments e.g. the Home Office might be doing forensic scientific work for the police.

Table 10.9: Scientific officer class: Departmental distribution

Type of department	Upper grades	Lower grades	All
	%	%	%
Economic	4	7	6
Technical	87	85	85
Social	1	2	2
Other	8	7	7
Total	100	100	100
(N)	(206)	(197)	(403)

Table 10.10: Scientific officer class and university teachers in natural science faculties 1961-2¹: Age

Age	Scientific officer class			University teachers in natural science faculties 1961/2 ¹
	Upper grades	Lower grades	All	
	%	%	%	%
25 and under	—	2	—	27 (aged under 30)
26-30	—	13	9	
31-35	—	20	14	38 (30-39)
36-40	4	21	16	
41-45	20	18	20	19 (40-49)
46-50	26	9	12	
51-55	23	11	15	16 (50 and over)
56-60	19	5	10	
61-65	8	2	5	
Total	100	100	100	100
Average age	51.4	41.3	44.5	X
(N)	(206)	(197)	(403)	(898)

¹ Report of the Committee on Higher Education (Robbins Report) Appendix Three, p. 30.

DEMOGRAPHIC COMPOSITION

Age and marital status

For a higher class the scientific officer class is relatively young (Table 10.10). They are on average, younger than the other technical or professional classes such as the professional works group or the legal class and they have a similar

age structure to that of the administrative class. No member of the upper grades is younger than thirty-six but the average age is only fifty-one compared with fifty-five for the upper works group. The average age of the lower grades is forty-one, a large proportion being concentrated in the thirty-one to forty-five year-old age group. The administrative class has a higher proportion under thirty-three in its lower grades but it should be remembered that the scientific officer class tends to employ graduates recruited directly from the universities in a temporary capacity when they first enter and our survey is concerned only with established personnel. The age structure of the *lower* grades is very similar to that of university teachers in natural science faculties; but the class as a whole is older. The study by Corson and Paul¹ reports that the average age of their sample of United States professional civil servants (including non-scientists) is fifty-two years which is higher than that of the upper grades in the British scientific officer class.

Our figures (not included) show that 87% of the class are married, 11% single and 1% widowed or divorced. The bachelors are, of course, concentrated in the lower grades among the younger members.

SOCIAL BACKGROUND

Geographical origins

The geographical origins of the scientific officer class are compared with the residential distribution of the U.K. population in 1921 (the census year nearest to the average year of birth of the two sample groups) in Table 10.11.

Compared with other Civil Service classes the class has a relatively high proportion of members born in the North and outside England. Among the upper grades one-third were born in the North, this being the second highest proportion for any of the twenty-six sample groups in our survey and high in relation to the 1921 population distribution in the U.K. The proportion of Northerners drops, however, in the lower grades to a quarter. This difference between the upper and lower grades in the proportion of Northerners corresponds partly to an increase in the proportion of Scottish, Welsh and Irish members in the lower grades (14%–22%). However, the scientific officer class as a whole is very close in its distribution by geographical origins to the present population distributions.

The smaller proportion of Northerners in the lower compared with the upper grades is associated with a relative decline of members born in the North among staff recruited in recent years (Table 10.12). Thus the proportion of direct entrants first established before, during or immediately after the war and born in the North was never below one-third, but well below a quarter for the period 1951 onwards. This decline of Northerners is matched by an increase in the proportion of direct entrants born in London and the South East (especially in the 1950's) or in the rest of the South and Midlands (especially in the 1960's). Table 10.12 also compares the geographical origins of direct entrants with promotees. A higher proportion of the latter were born in the rest of the South and Midlands and a smaller proportion in Wales, Scotland and Northern Ireland. The explanation for this lies in the greater extent of local recruitment in the non-graduate experimental officer class and its concentration of posts in the non-metropolitan South and Midlands. (See Chapter XI, p. 347.)

¹ J. J. Corson and R. S. Paul, *Men near the Top*, p. 82, John Hopkins Press, Baltimore, 1966.

Table 10.11: Scientific officer class: Geographical origins compared with the distribution of the British population in 1921,¹ 1931¹ and 1961²

Region of birth	Scientific officer class			Distribution of British population		
	Upper grades	Lower grades	All	1921 ¹	1931 ¹	1961 ²
	%	%	%	%	%	%
North	5	3	4			
East and West Riding	9	9	9			
North West	12	10	10	32	32	31
North Midlands	7	4	5			
London and South East	24	27	26	24	25	25
Rest of Midlands	6	4	4			
East	6	4	4			
Rest of South	8	10	9	23	23	26
South West	4	5	5			
Wales	5	9	8			
Scotland	8	12	11	20	19	18
N. Ireland	1	1	1			
Abroad	5	3	4	—	—	—
Total	100	100	100	100	100	100
(N)	(206)	(197)	(403)			

¹ Calculated from figures in Tables III and VIII in the *Census of England and Wales, 1931, Preliminary Report*.

² Calculated from figures in Tables 2 and 6 in *Census 1961, England and Wales, Preliminary Report*.

Table 10.12: Scientific officer class: Year of permanent establishment to the Civil Service by place of birth

Place of birth	Direct entrants established						Promotees
	Before 1940	(Appointed) 1940-45	1946-50	1951-60	1961 and after	All	
	%	%	%	%	%	%	%
North	39	34	38	16	23	28	25
London and South East	16	22	24	40	23	27	26
Rest of South and Midlands	19	24	18	18	27	22	30
Wales, Scotland and N. Ireland	21	17	16	22	23	20	14
Abroad	5	3	3	4	3	4	4
Total	100	100	100	100	100	100	100
(N)	(46)	(79)	(63)	(71)	(66)	(325)	(63)

Table 10.13: *Scientific officer class: Proportion whose fathers were civil servants*

Whether father a civil servant	Upper grades	Lower grades	All
	%	%	%
No	92	90	91
Yes, in social classes I and II	5	7	6
Yes, in social classes III-V	3	3	3
Total	100	100	100
(N)	(206)	(197)	(403)

Social class origins

Less than 10% of the present scientific officer class are sons of civil servants. This is a low proportion for a higher class. The figure for the administrative class is 21% and for the upper grades of the legal class 19%. On the other hand, it conforms to the general pattern for the scientific and technical classes of more frequent recruitment from non-Civil Service families than is the case among their colleagues in the desk classes (Table 10.13).

The social class origins of the scientific officer class are set out in Table 10.14 and compared with those of

- (a) university teachers in natural science faculties
- (b) United Kingdom male undergraduates in 1961/2, and
- (c) the general population in professional, managerial and high administrative occupations, born between 1910-29.

The median member of both the upper and the lower grades is, not unexpectedly, of middle class origins—the son of a father in an intermediate professional or managerial occupation (social class II). However, since the scientific officer class is classified by the Registrar General in social class I and as only 15% of them were themselves born into this social class, whilst one-third have fathers who worked in purely manual occupations, there has been a great deal of inter-generational upward mobility in this class. Moreover, the background of the scientific officer class is less socially exclusive than that of the administrative or legal classes, but at the same time the most socially exclusive of the scientific and technical classes.

In addition, a considerably higher proportion of the scientific officer class are of working class background (social classes III-V) than the general public in occupations within a similar social class, born in the same period as its typical (median and average) members.

There is, as in other Civil Service classes, little difference in social class origins between the grades. Only a slight decrease in the proportion of sons of higher professional and managerial fathers, and a slight decrease in the proportion of fathers in skilled manual occupations among members of the lower grades, may be noted.

It can be seen from Table 10.14 that the social class distribution of the scientific officer class is similar to that of undergraduates in 1961/2 except that there is a disproportionately large number of sons of skilled manual workers

Table 10.14: Scientific officer class, university teachers in natural science faculties¹, United Kingdom undergraduates 1961/2², and the British population in professional, managerial and high administrative occupations, born 1910-1929³: Social class origins (father's occupation)

Father's occupation	Scientific officer class			University teachers in natural science faculties ¹	U.K. male undergraduates 1961/2 ²	British population in professional, managerial and high administrative occupations born in	
	Upper grades	Lower grades	All			1910-1919 ³	1920-1929 ³
	%	%	%	%	%	%	%
I Higher professional and managerial	18	14	15	16	17	} 67	} 67
II Intermediate professional and managerial	39	37	38	39	40		
III (i) Skilled non-manual	11	12	13	} 36	12	} 29	} 28
(ii) Skilled manual	24	28	27		19		
IV and V Semi and unskilled	6	7	1	8	7	4	6
Other	1	1	1	2	5		
Total	100	100	100	100	100	100	100
(N)	(206)	(197)	(403)	(407)	(2,641)	(55)	(36)

¹ A. H. Halsey and M. Trow, *op. cit.*

² *Report of the Committee on Higher Education (Robbins Report)*, Appendix Two (B), p. 4.

³ D. V. Glass and J. R. Hall, *loc. cit.*, p. 187.

among the former. Presumably this is due in part to the tendency for working-class undergraduates to concentrate in the natural and applied science faculties.¹ Nevertheless, the question remains why the scientific officer class should so closely resemble the contemporary undergraduate body in their social background while the administrative class, as we saw in Chapter III, is disproportionately middle class by comparison with the national population of students. It should be noticed moreover, that the scientific officer class is almost identical in social class composition to the national body of university teachers in natural science faculties. Table 10.15 demonstrates a gradual but clear trend towards a widening of the social origins of direct entrants since before the war. The proportion born into social classes I and II declines from two-thirds of surviving members established in the class before 1940 to under half of those established in the 1960's. The figure for lower middle class or "white collar" antecedents (social class III (i)) remains steady while the proportion of sons of manual workers has doubled between before and after the war. There is a noticeable increase in the immediate post-war period in the intake of direct entrants whose fathers were skilled manual workers (and not during war-time as is often assumed) and in the 1960's of those whose fathers were semi or unskilled workers.

EDUCATIONAL BACKGROUND AND QUALIFICATIONS

School leaving age

As may be seen from Table 10.16 the great majority of the class stayed at

¹ In 1953 the proportions of male graduates in different faculties whose fathers were manual workers were as follows: arts, humanities, and social sciences 26%, applied science 31%, natural science (excluding medicine) 33%, *Report of the Committee on Higher Education (Robbins Report)*, Appendix Two (B), p. 428.

Table 10.15: Direct entrants in the scientific officer class: Year of permanent establishment by social class origins (father's occupation)

Father's occupation	Established					All
	Before 1940	(Appointed) 1940-5	1946-50	1951-60	1961 and after	
	%	%	%	%	%	%
I Higher professional and managerial	16	19	16	18	11	16
II Intermediate professional and managerial	52	43	36	34	38	39
III (i) Skilled non-manual	16	9	12	10	14	12
(ii) Skilled manual	14	19	33	33	24	26
IV and V Semi and unskilled	2	6	3	4	11	6
Other	—	3	1	—	2	1
Total	100	100	100	100	100	100
(N)	(46)	(79)	(63)	(71)	(66)	(325)

Table 10.16: Scientific officer class: School leaving age

School leaving age	Upper grades	Lower grades	All	Direct entrants	Promotees
	%	%	%	%	%
13 and under	1	1	1	2	3
14	1	2	1		
15	5	4	4		
16	13	9	10	3	9
17	28	27	28	9	16
18	41	48	46	86	72
19 and over	11	9	9		
Total	100	100	100	100	100
Average	17.33	17.39	17.38	X	X
(N)	(206)	(197)	(403)	(325)	(63)

school until after the age of seventeen, i.e. to the end of a full selective secondary school course. The minority who left earlier are relatively more likely to be promotees from the experimental officer and other classes, which is the mode of entry into the scientific officer class that does not require university or sub-university and professional qualifications. The school leaving age of the class is thus very similar to that of the administrative and legal classes.

School attended

The type of secondary school members attended is compared in Table 10.17 with that of

- male undergraduates in natural science faculties in 1961/2
- university teachers in natural science faculties, and
- industrial managers with degrees in natural and applied science.

Table 10.17: *Scientific officer class, male undergraduates in natural science faculties 1961/2,¹ university teachers in natural science faculties,² and managers with natural and applied science degrees³: Type of full-time school last attended*

Type of school	Scientific officer class			Male under-graduates in natural science faculties 1961/2 ¹	University teachers in natural science faculties ²	Managers with natural and applied science degrees ³
	Upper grades	Lower grades	All			
	%	%	%	%	%	%
Secondary modern and comprehensive	2	2	2	72	7	2
Technical	3	5	4			
L.E.A. grammar	53	57	57		61	55
Direct grant	17	13	14	15	13	
Public school and other fee paying	20	22	21	14	19	36
Schools abroad and other	4	2	2	X	X	7
Total	100	100	100	100	100	100
	%	%	%	%	%	%
Day school	90	87	88	X	X	X
Boarding school	10	13	12	X	X	X
Total	100	100	100	X	X	X
(N)	(206)	(197)	(403)	(983)	(406)	(104)

¹ *Report of the Committee on Higher Education (Robbing Report)*, Appendix Two (B), p. 8.

² A. H. Halsey and M. Trow, *op. cit.*

³ R. V. Clements, *Managers, a study of their careers in industry*, p. 189, George Allen and Unwin, London, 1958. The author does not separately categorise direct grant schools but it may be assumed that most come under his category of "grammar schools".

The typical median member is an ex-grammar school boy, 57% having attended L.E.A. grammar schools, 17% direct grant schools and 20% public and other fee paying schools. The number of secondary modern or technical school boys is negligible.

For direct entry the scientific officer class normally only accepts graduates, and is therefore part of the educational elite in the Civil Service, but it should nonetheless be noticed that recruits educated in the public sector form a higher proportion of the scientific officer class than of either the administrative and legal classes, of whom 37% and 53% respectively attended public and other fee paying schools, or of natural and applied science graduates in industry. The scientific officer class is very similar in school background to university teachers of natural science, but slightly more exclusive than that of undergraduates in natural science faculties in 1961. However, information on the secondary schooling of natural science undergraduates who were the contemporaries of the typical (median) member of the class is not available. We may assume that it would reveal, if anything, a slightly greater proportion educated in the private sector. Thus the scientific officer class, in contrast to the administrative class, does not appear to be socially and educationally more privileged than its professional colleagues outside the Civil Service, or other students in the same faculties.

Trends since the war in the schooling of direct entrants into the scientific officer class are shown in Table 10.18. No clear pattern emerges, but there is little indication that the definite widening in the social origins of the class has been matched by a movement towards less direct entrants educated in the private sector of secondary education, i.e. direct grant or fee paying schools.

Table 10.18: *Scientific officer class: Year of permanent establishment to the Civil Service by type of full-time school last attended*

Type of school	Direct entrants established						Promotees
	Before 1940	(Appointed) 1940-45	1946-50	1951-60	1961 and after	All	
Secondary modern, comprehensive and technical	%	%	%	%	%	%	%
L.E.A. grammar	6	—	2	2	7	4	16
Direct grant	50	64	63	54	52	56	57
Public school and other fee paying	21	10	12	16	18	15	12
Schools abroad and other	23	25	23	22	20	22	15
Total	100	100	100	100	100	100	100
Days school	%	%	%	%	%	%	%
Boarding school	90	80	92	85	84	86	95
Total	10	20	8	15	16	14	5
(N)	100	100	100	100	100	100	100
	(46)	(79)	(63)	(71)	(66)	(325)	(63)

The proportion educated at L.E.A. grammar schools dropped by about 10% between the 1940's and the 1950's and after, substituted by a slight increase in the proportion from direct grant schools. The number from public and other fee paying schools has remained very steady at between a fifth and quarter since before the war. Thus the slowly decreasing social discrimination of the educational system, rather than a trend towards the recruitment of candidates from the state schools, is responsible for the social widening of the scientific officer class made so clear in Table 10.15.

Promotees by definition first joined the Civil Service as members of a class where graduate recruitment was not normal, and it is to be expected that their school education would be predominantly in L.E.A. maintained schools, certainly more so than for direct entrants. As Table 10.18 shows, a smaller proportion of promotees than direct entrants attended direct grant or fee paying schools (27% as against 37%) but the difference is more interesting for its narrowness than for its existence.

Educational qualifications before entry

The highest educational qualifications obtained by the scientific officer class, whether before or after entry into the Civil Service, are set out in Table 10.19. The class is almost exclusively graduate and in this sense distinctly better qualified than any of the other Civil Service classes including the administrative and legal classes.

The pre-entry educational qualifications are shown in Table 10.20. The median member held a university first degree before entry into the Civil Service, but in addition a third already possessed a further degree or qualification (apart from the automatic M.A.'s of Oxford and Cambridge). This is the highest proportion of higher degree holders for any of the Civil Service classes in our survey.¹ It is partly related to the minimum requirements for direct entry into the senior scientific officer grades where "candidates are required to have had

¹ Nevertheless it compares poorly with the 79% of university teachers in natural science faculties who possess university higher degrees (mainly Ph.D.'s), *Report of the Committee on Higher Education (Robbins Report)* Appendix Three, p. 20.

Table 10.19: Scientific officer class: Highest educational qualification (whenever obtained)

Highest educational qualification	Upper grades	Lower grades
	%	%
University higher and first degrees and dip. of tech.	98	93
Membership of a professional institution or university diploma	2	5
All other qualifications	1	2
No qualification	—	1
Total	100	100
(N)	(206)	(197)

Table 10.20: Scientific officer class: Highest educational qualification obtained before entry into the Civil Service

Highest qualification before entry	Upper grades	Lower grades	All	Direct entrants	Promotees
	%	%	%	%	%
University higher degree	36	32	33	38	11
University first degree	55	51	52	56	32
Membership of a professional institution	—	2	2	1	4
University diploma	—	3	2	1	4
"A" level(s)	—	2	2	—	8
Higher National Certificate, Higher School Certificate	5	3	3	1	15
"O" level(s)	2	5	4	2	14
All other qualifications	—	1	1	—	5
No qualification	1	2	1	—	7
Total	100	100	100	100	100
(N)	(206)	(197)	(403)	(325)	(63)

at least three years appropriate post-graduate or other approved experience".¹ Although we cannot calculate it precisely from our figures, the proportion of direct entrants who come in at the senior scientific officer level has been, since 1960, somewhere between a third and a half.² Another method of recruitment to the scientific officer class is the "scientific research fellowship" scheme, for which successful candidates must have been engaged for a considerable time in productive research. The British situation appears to be similar to that in Germany where it is normal for candidates to take the doctorate and often the "habilitation"—the qualification which normally entitles the holder to be a candidate for a university chair.

Table 10.21 divides the scientific officer class into those first established in the Civil Service before 1940 or appointed during the war, and those established

¹ H.M. Treasury, *Introductory Factual Memorandum on the Civil Service*, p. 135.

² H.M. Treasury, *Introductory Factual Memorandum on the Civil Service*, loc. cit.

Table 10.21: *Scientific officer class: Grade distribution according to year of permanent establishment to the Civil Service and highest educational qualification obtained before entry into the Civil Service*

Present grade	Established before 1940 or appointed 1940-45			
	University higher degree	University first degree	All other qualifications or no qualification	All
	%	%	%	%
Upper grades	76	75	63	74
Lower grades	24	25	37	26
Total	100	100	100	100
(N)	(54)	(98)	(16)	(168)

Present grade	Established after 1945			
	University higher degree	University first degree	All other qualifications or no qualification	All
	%	%	%	%
Upper grades	40	44	23	35
Lower grades	60	56	77	65
Total	100	100	100	100
(N)	(84)	(116)	(35)	(235)

post-war; further subdivides the two groups according to their highest pre-entry qualification, and shows the proportions in the upper and lower grades. There is very little difference between those who joined the Civil Service with university first degrees and those who already possessed post-graduate qualifications. If anything, among members established post-war, the former group have had the greater "career success" in that a slightly higher proportion are now in the upper grades. However, there is a clear difference between staff who were graduates on entering the Civil Service, and those who were not. The lower grades have a greater proportion of members who were non-graduates (18% compared with 8%) and also over a third of the non-graduates who entered the Civil Service before or during the war are still in the lower grades as against a quarter of their graduate colleagues. Moreover, only 23% of those established since the war without university qualifications have already risen above the career grade compared with at least 40% of the graduates. This gap is, of course, hardly surprising. The great majority of non-graduates are promotees whose Civil Service career began in the experimental officer class or even scientific assistant class. Non-graduate members of the experimental officer class can only enter the scientific officer class by departmental promotion after reaching the age of thirty-one. On the other hand many graduates, especially those possessing a higher qualification, join the class at the senior scientific officer or even principal scientific officer grade and thus have fewer rungs to climb before reaching the upper grades.

It is worth mentioning, without reproducing all the data in tabular form, that the small group of non-graduates at entry are disproportionately temporary in their first appointments (84% compared with 65% of the class as a whole),

Table 10.22: *Scientific officer class: Institution of higher education*

Institution of higher education	Upper grades	Lower grades	All
	%	%	%
University full-time	87	81	82
University part-time	3	2	2
C.A.T. full or part-time	2	2	2
Regional College of Education full or part-time	3	2	2
Other, full or part-time	2	3	3
None	2	11	9
Total	100	100	100
(N)	(206)	(197)	(403)

markedly working class in origin (57% compared with 40% of the class as a whole), and more likely to have had a secondary modern or technical school education (26% compared with 6% of the class).

HIGHER EDUCATION

University

As may be seen from Table 10.22, about four in five of the class have at some time been full-time students at a university. Only the upper grades of the administrative class contain as large a proportion of full-time university graduates, the figure for the professional works group and the legal class (where the emphasis is on professional rather than university qualifications) being much smaller. The fact that the proportion of qualified scientists (defined as possessing a university first degree in science or corporate membership of a scientific institution) in the scientific officer class is 82%, indicates that the opportunity for non-graduate scientists to enter through the experimental officer or scientific assistant class is limited. Nevertheless, recruitment policy follows the practice of most other countries, for example, France, Germany, U.S.A. and Sweden. Australia is an exception: there, recruitment to professional and specialist posts is mainly by cadetship. Cadets are recruited after a leaving certificate or its equivalent and do their university training on a salary with tuition fees paid, while working in the relevant department during the university vacation.

By leaving aside the small minority of non-graduate members we can examine in Table 10.23 the contribution to recruitment from the different universities. What is immediately noticeable is that London and the Welsh and provincial universities dominate graduate recruitment to the scientific officer class—a pattern which is in marked contrast to the predominance of Oxford and Cambridge among graduates in the administrative and legal classes. London, Wales and the provinces contribute two-thirds of the graduates in the scientific officer class while Oxford and Cambridge contribute one in five. These proportions are reversed in the administrative and legal classes. There are some differences between the upper and lower grades of the class, the latter containing a smaller proportion of Oxford and Cambridge graduates and a larger proportion of

Table 10.23: Full-time university graduates in the scientific officer class,¹ natural and applied science undergraduates 1955/6,² natural and applied science graduates in industry,³ and university teachers in natural science faculties.⁴ University attended

University	Full-time university graduates in the scientific officer class ¹			Natural and applied science undergraduates 1955/6 ²	Natural and applied science graduates in industry ³		University teachers in natural science faculties 1961/2 ⁴
	Upper grades	Lower grades	All grades		Private sector	Public sector	
	%	%	%	%	%	%	%
Oxford or Cambridge	27	16	18	20	22	5	27
London	32	28	30	19			21
Welsh and English provincial	27	40	37	50	} 78	95	31
Scottish	11	14	13	11			14
Irish and foreign	3	2	2	X			6
Total	100	100	100	100	X 100	X 100	100
(N)	(182)	(160)	(342)	(6,460)			(853)

¹ For the purposes of comparison, members who attended university part-time, or other institutions of higher education part or full-time, have been excluded.

² Calculated from figures in G. L. Payne, *Britain's Scientific and Technological Manpower*, p. 166, Oxford University Press, London, 1966.

³ D. G. Clark, *The Industrial Manager: his background and career pattern*, pp. 38-39, Business publications Ltd., London, 1966.

⁴ *Report of the Committee on Higher Education (Robbins Report)* Appendix Three, p. 36.

Welsh and provincial university graduates. Of the individual universities Cambridge supplies about twice as many graduates as Oxford and apart from London it is the biggest single source of recruitment. It may be seen from the figures included in the table for 1955/6 graduates in science and technology that London University is "over represented" in the class while the Welsh and provincial universities are "under represented", in the upper grades especially where Oxford and Cambridge are also "over represented".¹

Table 10.24 indicates that trends in the recruitment of graduate direct entrants in the 1950's are responsible for this "atypicality". The decade saw a clear drop in the proportion coming from Oxford and Cambridge, and the other universities made up by a proportionate doubling in the appointment of London graduates and a modest increase in successful candidates from Scottish universities. The increase from London university and decrease from the Welsh and English provincial universities was reversed in the 1960's but the steady decline in recruitment from Oxford and Cambridge has substantially remained and should be contrasted with the position in the administrative class (Table 3.45). It should also be noted that while the private sector of industry draws a slightly higher proportion of its science graduates from Oxford and Cambridge than the Civil Service (22% against 18%) the latter contains over three times as many science graduates from Oxford and Cambridge as the public sector (18% compared with 5%). Compared with natural science faculties in universities, however, it has taken fewer Oxford and Cambridge graduates and more from London and the provincial universities.

The proportion now in the upper grades is related to year of establishment and university background in Table 10.25. The result is similar to that which

¹ It should be remembered, however, that the figures refer to one year only.

Table 10.24: Graduate direct entrants to the scientific officer class: Year of permanent establishment by university attended

University	Established						
	Before 1940	(Appointed) 1940-5	1946-50	1951-55	1956-60	1961 and after	All
	%	%	%	%	%	%	%
Oxford or Cambridge	31	25	16	8	9	14	16
London	24	25	18	40	40	19	26
Welsh and English provincial	29	38	45	29	27	44	38
Scottish	13	8	10	14	20	16	14
Irish and foreign	7	3	—	5	2	1	3
Other	3	3	10	9	3	6	6
(N) ¹	(31)	(60)	(59)	(39)	(45)	(82)	(316)

¹ Totals add up to over 100 because a few members attended more than one university for their 1st university first degree.

we saw in Chapter III for the administrative class. Oxford and Cambridge graduates are the most heavily concentrated in the upper grades whether established post-war or not, followed by London, the Scottish, and the Welsh and provincial universities in that order. The differences are not, however, very great¹ but the smaller proportion of Oxford and Cambridge graduates and the larger proportion of Welsh and English provincial graduates in the lower grades may well be partly due to the differences in "career success" between graduates from different universities. This is not to say, however, that trends in recruitment are not an important factor, especially in more recent years.

The social class origins of recruits from the different universities are compared in Table 10.26. Not unexpectedly, Oxford and Cambridge graduates tend more frequently to have middle class antecedents compared with those from the Welsh and provincial universities, with London and the Scottish universities occupying the middle position. A similar social pattern appears in Table 10.27 where university is related to school background: twice as many graduates from Oxford and Cambridge went to public and fee paying schools as from any other university group.

Our analysis so far of the scientific officer class has suggested that Oxford and Cambridge graduates might have had superior prospects for reaching the upper grades than graduates from the Welsh and English provincial universities. The question therefore arises as to whether this is attributable to the university attended or to the feature of social and school background which we also know distinguish Oxford and Cambridge from other, and especially provincial, university graduates.² An attempt to answer this question is made in Table 10.28 where the class is divided first into four groups according to university attended

¹ They are insignificant for graduates established before, or appointed during the war, but significant for those established post-war, at the 10% level.

² Figures not included in any tables show that Oxford and Cambridge graduates did not disproportionately possess post-graduate qualifications.

Table 10.25: Full-time university graduates in the scientific officer class: Grade distribution according to year of permanent establishment to the Civil Service and university attended

Present grade	Established before 1940 or appointed 1940-45				
	Oxford and Cambridge	London	Welsh and English provincial	Scottish	All ¹
	%	%	%	%	%
Upper grades	79	77	72	73	74
Lower grades	21	23	28	27	26
Total	100	100	100	100	100
(N)	(43)	(47)	(43)	(15)	(152)
Present grade	Established after 1945				
	Oxford and Cambridge	London	Welsh and English provincial	Scottish	All ¹
	%	%	%	%	%
Upper grades	48	39	27	34	35
Lower grades	52	61	73	66	65
Total	100	100	100	100	100
(N)	(33)	(57)	(71)	(29)	(190)

¹ Including staff who attended universities in Ireland or abroad of whom there were too few for separate analysis.

Table 10.26: Full-time university graduates in the scientific officer class: Social class origins (father's occupation)

Father's occupation	Oxford and Cambridge	London	Welsh and English provincial	Scottish	All ¹
	%	%	%	%	%
I Higher professional and managerial	33	15	9	15	15
II Intermediate professional and managerial	42	44	36	34	39
III (i) Skilled non-manual	9	9	16	4	12
III (ii) Skilled manual	13	30	25	35	27
IV and V Semi and unskilled	2	3	12	8	7
Other	1	—	2	3	1
Total	100	100	100	100	100
(N)	(76)	(104)	(114)	(44)	(342)

¹ Including graduates from universities in Ireland and abroad of whom there were too few for separate analysis.

and then sub-divided according to whether they had middle class (social class I or II) or working class antecedents. If a greater proportion of middle class than working class graduates are in the upper grades whatever the university they attended we could assume that social class background was a major factor. But

Table 10.27: Full-time university graduates in the scientific officer class: University attended by type of full-time school last attended

Type of school	Oxford and Cambridge	London	Welsh and English provincial	Scottish	All ¹
	%	%	%	%	%
Secondary modern and technical	—	2	2	3	3
L.E.A. grammar	28	60	69	60	58
Direct grant	19	12	17	17	15
Public school and other fee paying	50	26	10	13	22
Schools abroad and other	2	—	1	6	2
Total	100	100	100	100	100
	%	%	%	%	%
Day school	75	93	87	82	87
Boarding school	25	7	13	18	13
Total	100	100	100	100	100
(N)	(76)	(104)	(114)	(44)	(342)

¹ Includes graduates from universities in Ireland and abroad of whom there were too few for separate analysis.

Table 10.28: Full time university graduates in the scientific officer class: Grade distribution according to university attended and to social class origins (father's occupation)

Present grade	Oxford and Cambridge		London		Welsh and English provincial		Scottish		All ¹	
	Social classes I and II	Social classes III-V	Social classes I and II	Social classes III-V	Social classes I and II	Social classes III-V	Social classes I and II	Social classes III-V	Social classes I and II	Social classes III-V
	%	%	%	%	%	%	%	%	%	%
Upper grades	63	74	55	58	47	40	60	33	56	50
Lower grades	37	26	45	42	53	60	40	67	44	50
Total	100	100	100	100	100	100	100	100	100	100
(N)	(54)	(19)	(60)	(43)	(53)	(58)	(25)	(18)	(202)	(140)

¹ Includes graduates from universities in Ireland and abroad and graduates with an unidentifiable or unclassifiable social class background of whom there were too few for separate analysis.

if for both social class groups Oxford and Cambridge had greater proportions in the upper grades then we could infer that the university experience was crucial. The figures in Table 10.28 indicate that the latter is the case. Oxford and Cambridge graduates, whatever their social class origins, tend to be the more concentrated in the upper grades than science graduates from the Welsh and English provincial universities. Indeed, Oxford and Cambridge graduates with working class antecedents are in the upper grades to a greater extent than those with middle class origins. This social class pattern is reversed in the Welsh, English provincial and Scottish universities and overall there is slightly greater "career success" for middle class graduates.

Table 10.29: Graduates in the scientific officer class¹ and U.K. graduates of 1955/62: Main subject(s) studied for 1st university first degree

Subject	Scientific officer class		1955/56 natural and applied science graduates ²
	Upper grades	Lower grades	
	%	%	%
Physics	24	26	14
Maths	18	17	11
Chemistry	17	16	20
Biological sciences ³	10	11	12
Other natural sciences	2	3	3
Total natural science	71	73	Plus general science 11 = 71
Electrical engineering	9	7	4
Mechanical engineering	9	8	5
Civil engineering	6	4	5
Other engineering	3	4	4
Other applied sciences	4	3	7
Total applied sciences	31	26	Plus general engineering 4 = 29
Humanities/Arts	1	1	
Social sciences	4	2	
Other subjects	2	1	
Total ⁴	109	103	100
(N)	(201)	(175)	(3,989)

¹ Full-time university and other graduates who attended "other" institutions of higher education are included.

² G. L. Payne, *op. cit.*, p. 177.

³ Biochemistry, botany, genetics, microbiology, zoology, physiology and anatomy.

⁴ Totals add up to 100 because the studies of many members were equally divided between more than one subject.

⁵ Figures for the class as a whole do not distinguish between any of the natural or applied sciences and are therefore excluded.

Subjects studied at university

The subjects studied by members who attended an institution of higher education are set out in Table 10.29. A rough comparison is also made in the table with students attending full-time in the natural and applied science faculties of the British universities. About two and a half times as many took their undergraduate studies in a natural as in an applied science and in this the scientific officer class are representative of undergraduates in the science faculties generally. Of the majority who read a natural science, physics accounts for the largest numbers followed by mathematics and chemistry in about equal proportions. Among the minority who read one of the applied sciences the most popular were electrical or mechanical engineering. There are no important differences between the upper and lower grades except that a rather smaller proportion of the latter took an applied science degree. Data showed that the distinction between a natural or applied science degree could not be associated with any appreciable differences in social, educational, occupational or personal background. There has been no trend towards or away from the recruitment of natural or applied scientists although a disproportionate number of war-time direct entrants had degrees in the applied sciences (46% as against 27% of all graduate direct entrants).

Table 10.30: *Graduates in the scientific officer class, and natural and applied science students graduating in 1936 and 1954¹: Class of 1st university first degree*

Class of degree	Graduates in the scientific officer class			Natural and applied science students graduating in	
	Upper grades	Lower grades	All	1936 ¹	1954 ¹
	%	%	%	%	%
First	50	34	39	16	12
Upper second	13	15	15	29	48
Undivided second	23	26	25		
Lower second	1	12	9	55	40
Other	12	13	12		
Total	100	100	100	100	100
(N)	(201)	(175)	(376)	(X)	(X)

¹ *Report of the Committee on Higher Education (Robbins Report)*, Appendix Two (A), p. 144.

Class of degree

Details of the class of first degree taken by graduate members of the scientific officer class are given in Table 10.30 and compared with all full-time university graduates in the natural and applied sciences in 1936 (a year near to the average graduation year of the upper grades) and in 1954 (for purposes of comparison with the younger and more recently recruited members of the lower grades). The quality of first degrees in the class is extremely high. Half of the graduates in the upper grades have firsts. This is the highest proportion of any of the sample groups in our survey and higher than for the upper grades of the administrative class where 45% of the men and 36% of the women had firsts. It is true, as for the other graduate classes of the Civil Service, that the proportion of firsts drops in the lower grades while the proportion of seconds increases. Nevertheless, one-third even of the lower grades possess a first-class degree and this is again a higher proportion than for any of the other lower grades of the graduate Civil Service classes including the administrative class where about one in five have firsts.

It is clear then, that the scientific officer class recruits heavily from the most able science graduates in Britain, though the differences between the upper and the lower grades reflect recent trends in recruitment. From Table 10.31 it appears that the class has slightly lost its predominance in the competition for high honours graduates. The proportion of direct entrants with firsts dropped by 20% from before 1940 when they predominated in the graduate intake (59%) to war-time (39%) and, after a short post-war revival in the direct recruitment of first-class graduates, again fell by 20% in the 1950's and 1960's.¹ The decline has been made up, not by an increase in upper or undivided seconds, but by

¹ Figures in Table 10.31, as in most other tables in the survey, strictly relate only to present survivors among the total intake of any period. There is, however, little reason to suppose that they are significantly unrepresentative of the original intake, and therefore that this limitation seriously affects our arguments about trends in recruitment. The proportion of firsts in 1961-2 among university teachers in natural science faculties was 63%, in applied science faculties 56%.

Table 10.31: Graduate direct entrants in the scientific officer class: Year of permanent establishment by class of 1st university first degree

Class of degree	Established					
	Before 1940	(Appointed) 1940-45	1946-50	1951-60	1961 and after	All
	%	%	%	%	%	%
First	59	39	48	36	37	41
Upper second	5	17	14	19	18	16
Undivided second	26	28	20	32	18	25
Lower second	2	4	3	11	21	10
Other	8	12	16	1	7	8
Total	100	100	100	100	100	100
(N)	(31)	(60)	(59)	(84)	(82)	(316)

lower seconds who constituted less than 5% of the direct graduate intake before 1950 but one-fifth of the graduate direct entrants in the period after 1960. Thus the proportion of firsts in the upper grades is four times the national proportion of 1936 whereas among the lower grades it drops to three times the 1954 national proportion. It is also below that for university teachers in natural and applied science faculties.¹ Seconds are slightly "over represented" and appear to have followed closely the upward trend in the country of second class science degrees in recent years. On the other hand, while in the country at large the proportion of science graduates with thirds or below has fallen from 55% to 40% between 1936 and 1954, the proportion in the scientific officer class has remained the same.

As may be seen in Table 10.32 there is a clear association between class of degree and membership of the upper grades. For all graduate staff whenever established a relatively high proportion of those holding firsts have reached the upper grades. It should also be noticed that among those established before 1940 or appointed during the war, the undivided seconds (mainly Oxford graduates) have done relatively well. This disparity in the "career success" of graduates with different classes of degree also explains the margin in the quality of graduates between the upper and lower grades.

Table 10.33 shows that applied scientists are relatively more likely than natural scientists to hold first or other degrees. A higher proportion of applied scientists were full time students at institutions of higher education other than universities. In Table 10.34 class of degree is related to university. It appears that London, Oxford and Cambridge have contributed a slightly lower proportion of firsts and upper seconds compared with the Welsh and provincial universities. On the other had, the latter universities have contributed a relatively high proportion of lower seconds and a relatively low proportion of undivided seconds. However, university group for university group, the graduates recruited to the scientific officer class from the Welsh and English provincial universities have the highest average class of degree.

¹ Report of the Committee on Higher Education, 1961-63 (Riobbins Report) Appendix Three, p. 20. The proportion of firsts in 1961/62 among university teachers in natural science faculties was 63%, in applied science faculties, 56%.

Table 10.32: Graduates in the scientific officer class: Grade distribution according to year of permanent establishment to the Civil Service and class of 1st university first degree

Present grade	Established before 1940 and appointed 1940-45				
	First	Upper second	Undivided second	Lower second and below	All
	%	%	%	%	%
Upper grades	86	65	74	59	76
Lower grades	14	35	26	41	24
Total	100	100	100	100	100
(N)	(76)	(17)	(39)	(29)	(161)

Present grade	Established after 1945				
	First	Upper second	Undivided second	Lower second and below	All
	%	%	%	%	%
Upper grades	42	43	33	26	32
Lower grades	58	57	67	74	68
Total	100	100	100	100	100
(N)	(85)	(37)	(52)	(42)	(216)

Table 10.33: Graduates in the scientific officer class: Class of 1st university first degree by main subject(s) studied for 1st university first degree

Subject	First	Upper second	Undivided second	Lower second	Other	All
	%	%	%	%	%	%
Natural science	68	77	79	82	58	72
Applied science	35	16	22	13	36	27
All others	1	3	6	6	13	5
Total	*	100	*	100	*	*
(N)	(161)	(54)	(91)	(25)	(46)	(377)

* Totals add up to over 100 because some staff took degrees in a combination of subjects which cut across the broad disciplines distinguished in this table.

OCCUPATIONAL EXPERIENCE

Previous field of employment

Among the scientific and technical classes included in our survey, the scientific officer class has the highest proportion of those whose first job was in the Civil

Table 10.34: *Graduates in the scientific officer class: Class of 1st university first degree by university attended*

University	First	Upper second	Undivided second	Lower second	Other	All
	%	%	%	%	%	%
Oxford and Cambridge	16	14	21	12	23	17
London	26	24	37	18	16	27
Welsh and English provincial	36	53	12	66	23	34
Scottish	14	6	17	—	16	12
Irish, foreign and other	8	4	14	4	26	12
Total	100	100	100	100	*	*
(N)	(161)	(54)	(91)	(24)	(46)	(376)

* Totals add up to over 100 because a few staff attended more than one university before obtaining their 1st university first degree.

Table 10.35: *Scientific officer class: Field of employment before joining the Civil Service*

Field of employment	Upper grades	Lower grades	All
	%	%	%
None	40	44	44
Industry	36	33	35
Commerce	1	1	
Education	20	11	13
Local government	1	1	1
Armed forces and local uniformed services	1	2	2
Communications	3	1	15
Agriculture, forestry and fishing	4	1	
Other	10	12	
(N) ¹	(206)	(197)	(403)

¹ Totals add up to over 100 because a few members were employed in two or more different fields before joining the Civil Service.

Service (Table 10.35). In his study of managers in industry Clark¹ found that exactly the same proportion (44%) of science graduates in industry had seen service with one and the same firm. Among the fields of pre-entry employment the two substantial sources of recruitment to the class have been industry and education. One in five among the upper grades had previously been employed in education and this is the highest proportion from education in any of the twenty-six sample groups. Otherwise members with previous outside employment are

¹ D. G. Clark, *op. cit.*, p. 89.

Table 10.36: *Direct entrants in the scientific officer class: Year of permanent establishment by field of employment before joining the Civil Service*

Field of employment	Established					
	Before 1940	(Appointed) 1940-5	1946-50	1951-60	1961 and after	All
	%	%	%	%	%	%
None	68	60	39	45	31	45
Industry and commerce	16	30	38	24	49	34
Education	11	13	14	17	9	13
All other	9	6	17	23	25	17
(N) ¹	(46)	(79)	(63)	(71)	(66)	(325)

¹ See footnote to Table 10.34.

spread thinly and evenly over the other fields listed in the table. Table 10.36 makes clear the increasing recruitment of direct entrants already employed elsewhere and the movement away from the recruitment of graduates straight from the universities. Over two-thirds of the surviving direct entrants first established before the war have spent all their working years in the scientific officer class, compared with less than half as many among those staff directly established in the class in the 1960's. Industry has been a fluctuating source of recruitment, expanding during the war and shortly after, declining in its contribution in the 1950's but increasing it again in the 1960's (from 24% to 49% of all direct entrants). Otherwise all fields of employment have steadily increased their supply of direct entrants without any one making an exceptional contribution.

Educational qualifications after entry

Members of the scientific officer class normally enter the Civil Service as graduates but as many as half of them have gone on to gain further qualifications during their service¹ (Table 10.37). Only the experimental officer class has a higher proportion of members who have gained some kind of post-entry qualification, and the scientific officer class contains the highest proportion who have obtained qualifications of university standard after appointment (nearly twice that of the administrative class).

The qualifications gained are of three kinds. First, there are those of university standard. One in three of the upper grades and one in five of the lower grades acquired a university first or higher degree since they began their service. These figures include a few (3% or 4%) who actually obtained *more than one* such qualification after joining the Civil Service (Table 10.37). It is remarkable that about a third of the upper grades should have had the time and energy as

¹ Data refer strictly to the attainment of qualifications after joining the Civil Service. It excludes staff who worked towards but failed to obtain qualifications during service and includes, for example, members who successfully submitted theses during service even though they undertook the necessary research before entry.

Table 10.37: *Scientific officer class: Total and highest educational qualifications obtained after entry into the Civil Service*

Qualification after entry	Upper grades		Lower grades		All	Direct entrants	Promotees
	Total quals.	Highest qual.	Total quals.	Highest qual.	Highest qual.	Highest qual.	Highest qual.
	%	%	%	%	%	%	%
University higher degree	28	} 32	17	} 20	} 24	} 21	} 37
University first degree	7		7				
Membership of a professional institution	42	24	29	20	21	20	29
All other qualifications	7	2	17	7	5	4	8
No qualification	42	42	53	53	50	55	26
Total	*	100	*	100	100	100	100
(N)	(206)	(206)	(197)	(197)	(403)	(325)	(63)

* Totals add up to over 100 because some members gained more than one qualification after joining the Civil Service.

well as the opportunity to attain these qualifications.¹ Moreover, the proportion in the lower grades with post-entry university qualifications does not take into account those who are still studying. As some members of the lower grades may yet gain further university qualifications, we cannot gauge to what extent the margin in post-entry university qualifications between the upper and lower grades is attributable to either (i) a decline in the candidature for university qualifications among the recent intake, or (ii) less "career success" among staff without post-entry first or higher degrees.

Second, about a quarter of the staff become corporate members of professional bodies and institutions. Third, a small minority in the scientific officer class have gained sub-university and sub-professional qualifications since joining the Civil Service. Most proceeded to become graduates or members of a professional institution on the basis of these first sub-university and sub-professional qualifications. Table 10.37 also distinguishes between the post-entry qualifications of direct entrants and promotees. It is nearly a prerequisite for promotion from a supporting class to have obtained a qualification (very largely at the university or professional level) after joining the Civil Service. Only 26% of the promotees have not procured a qualification since entry compared with 55% of the direct entrants, and over a third of the promotees took degrees during service. We do not know, however, the proportion of promotees who obtained their qualifications *after* promotion into the scientific officer class.

The relation between post-entry qualifications and "career success" is explored in Table 10.38. The table indicates that membership of the upper grades is more likely for those who, after joining the Civil Service took first or higher degrees

¹ Though some of the higher degrees may have been obtained earlier in an officer's career and as a by-product of normal work.

Table 10.38: Scientific officer class: Grade distribution according to year of permanent establishment to the Civil Service and to highest educational qualification obtained after entry into the Civil Service

Present grade	Established before 1940 or appointed 1940-45				
	Obtained as highest qualification after entry into the Civil Service				
	University higher or first degree	Membership of a professional institution	All other qualifications	No qualification	All
	%	%		%	%
Upper grades	81	70	*	75	74
Lower grades	19	30	*	25	26
Total	100	100	*	100	100
(N)	(52)	(47)	*	(65)	(168)
Present grade	Established after 1945				
	%	%	%	%	%
Upper grades	43	40	23	30	34
Lower grades	57	60	77	70	66
Total	100	100	100	100	100
(N)	(53)	(43)	(13)	(126)	(235)

* Insufficient numbers for valid analysis. The few members of staff established before or appointed during the war whose highest educational qualification was neither of university nor professional standard, are included under the category "All".

or became members of professional institutes than for those who gained no post-entry qualifications, or only reached a sub-university or sub-professional level.

There are some associations in the scientific officer class between post-entry qualifications and previous educational and occupational experience. Table 10.39 relates educational qualifications gained after entry with those obtained before entry and with the institution of higher education attended. In contrast with the administrative class where, in general, staff with high pre-entry qualifications disproportionately obtained high post-entry qualifications, in the scientific officer class it was those with relatively poor pre-entry qualifications or a slightly under privileged education, who particularly worked for high qualifications during service. For example, 29% of those with a first or higher degree obtained during service, only possessed at most sub-professional and sub-university qualifications before joining the Civil Service, compared with 15% of the class. Similarly, whereas only 10% of all graduates in the class attended institutions of higher education other than university full-time, 22% of those who took a degree after entry did so.

Class to class mobility

In considering class to class movements we divided the class, as usual, into three groups:

Table 10.39: *Scientific officer class: Highest educational qualification obtained after entry into the Civil Service by highest educational qualification obtained before entry into the Civil Service and by institution of higher education*

Highest qualification before entry	Obtained as highest qualification <i>after</i> entry into the Civil Service				
	University higher or first degree	Membership of a professional institution	All other qualifications	No qualification	All
	%	%	%	%	%
University higher degree	10	30	19	47	33
University first degree	62	54	30	48	52
All other qualifications (including none)	29	16	51	5	15
Total	100	100	100	100	100
(N)	(105)	(90)	(17)	(191)	(403)
Institution of higher education					
	%	%	%	%	%
University full-time	78	87	91	97	90
University part-time and other institutions full or part-time	22	13	9	3	10
Total	100	100	100	100	100
(N) ¹	(104)	(79)	(10)	(183)	(376)

¹ Excludes non-graduates.

- (1) direct entrants, whose first post in the Civil Service was in the scientific officer class;
- (2) promotees, who first joined the Civil Service as members of a class where graduate recruitment is not normal; and
- (3) transfers, who first joined the Civil Service as members of a class other than the scientific officer class, where graduate recruitment is normal.

Eighty-one per cent of the class are direct entrants, 16% promotees and only 4% transfers (no table). This represents a higher proportion of direct entrants and lower proportion of promotees than in the administrative class or professional works group. Information from the Central Staff Record about the Civil Service class background of the original two samples making up the scientific officer class, indicate that all but five promotees began their Civil Service career as members of the experimental officer class. Thus promotion from the scientific assistant to the scientific officer class is quite exceptional. We have already compared direct entrants and promotees (the number of transfers being too small for valid separate analysis) in a number of respects and especially in their educational background (Tables 10.16, 10.18, 10.20). The figures show the clear

Table 10.40: Direct entrants and promotees in the scientific officer class: Year of permanent establishment to the Civil Service and age

Year of establishment	Direct entrants	Promotees	All ¹
	%	%	%
Before 1940	10	10	11
(Appointed) 1940-45	18	30	20
1946-50	18	20	18
1951-55	12	15	12
1956-60	14	12	14
1961 and after	28	12	24
Total	100	100	100
Age			
	%	%	%
Under 33	21	22	21
33-50	56	47	53
Over 50	22	30	26
Total	100	100	100
(N)	(325)	(63)	(403)

¹ Includes transfers of whom there were too few for separate analysis (N=15).

but moderate extent to which promotion from the experimental officer class has allowed an educationally underprivileged sector of the class (in this case non-graduates, members who attended L.E.A. non-selective schools, school leavers at the statutory minimum age, etc.) to enter on the merits of their performance.

In tables 10.40 to 10.42 we examine the direct entrants and promotees further, and compare the latter group with the class in which the vast majority started their Civil Service career—the experimental officer class.

Promotees in the scientific officer class are, surprisingly, only slightly older and longer established in the Civil Service than their colleagues who entered the class directly. Thirty per cent are over fifty compared with 22% of the direct entrants, and very similar proportions are under thirty-three. That over a fifth of the promotees are under thirty-three when the minimum age for *departmental* promotion from the experimental officer class is thirty-one, indicates the large number who obtain promotion by entering the open competitions. Table 10.40 also makes clear that war-time recruitment has accounted for a disproportionate number of promotees (30% as against 20% of the whole class).

Table 10.41 compares the social class origins of direct entrants, promotees and present male members of the experimental officer class and shows that class to class promotion contributes little to widening the social composition of the scientific officer class. While promotees are less middle class in background than direct entrants (44% are the sons of fathers of social classes I and II compared with 55% of the direct entrants) they are also distinguished in class

Table 10.41: *Direct entrants and promotees in the scientific officer class, and men in the upper and lower grades of the experimental officer class: Social class origins (father's occupation)*

Father's occupation	Scientific officer class		Experimental officer class	
	Direct entrants	Promotees	Men	
			Upper grades	Lower grades
	%	%	%	%
I Higher professional and managerial	16	10	6	7
II Intermediate professional and managerial	39	34	30	26
III (i) Skilled non-manual	12	14	13	16
(ii) Skilled manual	26	32	39	38
IV and V Semi and unskilled	6	10	8	10
Other	1	1	5	2
Total	100	100	100	100
(N)	(325)	(63)	(196)	(208)

origins from the male experimental officer class, particularly its lower grades, of whom only 33% have middle class antecedents.

A more important effect of promotion is made clear in Table 10.42. Promotees are defined as those who first joined the Civil Service as members of a class where graduate recruitment is not normal, and thus initial entry into the experimental officer class counts as promotion. Yet 45% of promotees attended a university as full-time students and only a third did not attend some institution of higher education. This element in their background very markedly distinguishes them from colleagues they left behind in the experimental officer class of whom the vast majority ended their full-time education at school. However, the higher education promotees received is also somewhat different from that of direct entrants. Apart from the far larger proportion who received no higher education (34% compared with 3% of direct entrants), nearly a third of the remainder attended institutions of higher education other than university full-time (regional, teacher training and technical colleges, etc.), as against a negligible proportion among the direct entrants. This is re-emphasised in the table giving the university attended by direct entrants, promotees and the male experimental officer class. From the same table emerges another point of interest. Oxford, Cambridge and London University full-time graduates appear to have better class to class prospects than full-time graduates from the Welsh, English provincial and Scottish universities. Forty-eight per cent of the graduate promotees went to Oxford, Cambridge or London University as against 16%–19% of the minority of graduates in their class of origin, and even a slightly smaller proportion among direct entrants. However, the proportion of graduate promotees from Welsh, English provincial and Scottish universities is not only less than that among direct entrants (20% compared with 52%), but also smaller than that among graduates in the male experimental officer class (20% as against 59%–68%). There is no ready explanation for the differential chances

Table 10.42: Direct entrants and promotees in the scientific officer class, and the upper and lower grades of the experimental officer class: Institution of higher education, university attended and class of degree

Institution of higher education	Scientific officer class		Experimental officer class	
	Direct entrants	Promotees	Men	
			Upper grades	Lower grades
	%	%	%	%
University full-time	91	45	18	10
University part-time, and other institutions, full or part-time	6	21	9	2
None	3	34	73	88
Total	100	100	100	100
(N)	(325)	(63)	(196)	(208)
University				
	%	%	%	%
Oxford and Cambridge	16	20	4	2
London	26	28	15	4
Welsh and English provincial	38	20	38	56
Scottish	14	—	11	12
Irish and foreign	3	—	—	8
Other	6	31	32	16
Total	*	100	100	*
Class of degree				
	%	%	%	%
First	41	25	2	4
Upper second	16	8	2	12
Undivided second	25	28	15	4
Lower second	10	9	8	16
Other	8	29	74	64
Total	100	100	100	100
(N) ¹	(316)	(49)	(53)	(25)

¹ Excludes non-graduates.

* Totals add up to over 100 because a few members attended more than one university for their 1st university first degree.

of promotion between graduates from the different groups of universities in terms of classes of degree. Male graduates in the experimental officer class from Welsh, English provincial and Scottish universities do not have inferior degrees.

The normal minimum standard of degree for direct entry into the scientific officer class is a second, and from Table 10.42 it is evident that promotion from the experimental officer class serves graduates with thirds or lower classes, who formed 29% of the graduate promotees compared with 8% of the graduate

Table 10.43: Direct entrants and promotees in the Scientific officer class, and men in the upper and lower grades of the experimental officer class: Type of full-time school last attended and highest educational qualification obtained after entry into the Civil Service.

Type of school	Scientific officer class		Experimental officer class	
	Direct entrants	Promotees	Men	
			Upper grades	Lower grades
	%	%	%	%
Secondary modern and technical	4	16	21	21
L.E.A. grammar	56	57	49	54
Direct grant	15	12	16	11
Public school and other fee paying	22	15	11	9
Schools abroad and other	3	—	2	5
Total	100	100	100	100
Highest qualification after entry				
	%	%	%	%
University first and higher degree	21	37	7	2
Membership of a professional institution	20	29	28	20
All other qualifications	4	8	24	48
No qualification	55	26	41	29
Total	100	100	100	100
(N)	(325)	(63)	(196)	(208)

direct entrants. Nevertheless a quarter of the promoted graduates possessed firsts, a third firsts or upper seconds, and over half firsts, upper and undivided seconds. Thus even *promoted* graduates have a higher class of degree on average than science graduates in the country at large (Table 10.30). This would appear at first sight as an under-utilisation of actual or potential quality (*potential* where members gained a high class of degree during service) within the scientific Civil Service.

Promotees are not particularly distinguished by greater attendance at less selective schools, or schools in the public sector; over a quarter were educated at direct grant or public and other fee paying schools and virtually the same proportion as among direct entrants went to L.E.A. grammar schools. Promotees also hardly deviate in their school background from the male colleagues they left on promotion (Table 10.43). Again, we must conclude that promotion serves the well-qualified, rather than functions as a social leveller for the scientific officer class. This is illustrated by the difference in the highest post-entry qualifications of promotees and present members of the experimental officer class (Table 10.43). Sixty-six per cent of the promotees became professionally qualified or took degrees during service compared with 35% of the upper grades and 22% of the lower grades in the male experimental officer class. Our figures naturally cannot cover members, especially of the lower grades, who

Table 10.44: *Scientific officer class and local government electors¹: Nominal and active membership of organisations and voluntary associations*

Type of organisation	Scientific officer class						Local government electors ¹
	Upper grades		Lower grades		All		
	Nominal members	Active members	Nominal members	Active members	Nominal members	Active members	Nominal members
None	%	%	%	%	%	%	%
Professional bodies connected with work	4	48	6	53	5	52	X
Other associations connected with work	73 } 35	21 } 30	66 } 85	11 } 21	67 } 86	14 } 23	} 27
Clubs and societies connected with social and leisure activities	66	14	63	13	65	13	
Religions and Church-connected associations	75	13	66	19	69	17	17
Civic groups	13	7	12	8	12	8	10
Associations connected with education and training	28	6	23	4	25	5	7
Public bodies	9	4	12	6	11	5	5
Other associations connected with welfare	9	4	3	2	5	2	1
Any other associations, societies etc.	4	2	1	1	2	1	3
	22	7	13	4	16	4	X
(N) ²	(206)	(206)	(197)	(197)	(403)	(403)	(X)

¹ M. Horton, *op. cit.*² Totals add up to over 100 because many members were nominal and active members of more than one type of voluntary association.

might yet obtain such qualifications but the number is hardly likely to upset the force of the comparison.

PROFESSIONAL AND LEISURE ACTIVITY

Membership of voluntary associations

The proportion of the scientific officer class who belong to different types of outside organisation as nominal or active members is shown in Table 10.44 with a national sample as comparison. For scientific officers membership of at least one organisation is almost universal. Indeed, those in the upper grades belong on average to three different types of organisation. For both the upper and lower grades, clubs and societies devoted to social and leisure activities claim the largest proportion, closely followed by the professional and other work-connected organisations. There are no very important differences between the upper and lower grades except that the former have membership in a greater number of different types of organisations. Active, as opposed to nominal membership, is even less differentiated between the upper and lower grades.

Among the upper grades professional bodies have the highest proportion of active participants (21%) but in the lower grades social and leisure clubs have the greatest attraction (19%). A greater proportion of the lower grades are active in the running of social and leisure clubs though the upper grades have the higher proportion of nominal members. Thus it seems that the upper grades tend to discard active participation in clubs devoted to social pursuits more than in work-connected organisations. As in virtually all other classes, far greater proportions of the scientific officer class belong to voluntary associations of nearly every type, than the general adult population.

Table 10.45: *Scientific officer class and British adults in social classes I and II with terminal education age of 19 or over¹: Readership of daily and Sunday newspapers*

Daily newspaper	Scientific officer class			British adults in social classes I and II with a T.E.A. of 19 or more ¹
	Upper grades	Lower grades	All	
	%	%	%	%
Times	37	18	23	22
Guardian	18	27	24	18
Daily Telegraph	48	35	39	41
Daily Express	12	13	26	27
Daily Mail	14	12		19
Sun ²	3	1	4	2
Daily Mirror	4	1		5
Daily Sketch	1	3		
None	1	5	4	X
Sunday newspaper				
	%	%	%	%
Sunday Times	42	35	37	46
Observer	49	46	48	29
Sunday Telegraph	15	11	11	21
Sunday Express	30	26	27	44
News of the World	1	3	5	7
Sunday Mirror	1	5		4
Sunday Citizen	1	2		1
The People	—	3	4	7
None	4	5		X
(N) ³	(206)	(197)	(403)	(392)

¹ M. Abrams, *Education, social class and readership of newspapers and magazines*, pp. 12, 18.

² The *Daily Herald* for column 4. Little change in the readership for the *Sun* is likely.

³ Totals add up to over 100 because many members read more than one daily or Sunday newspaper.

Readership of the daily and weekly press

In table 10.45 details of newspaper readership are set out in similar fashion to that for other Civil Service classes in our survey and again with the same definition of regular readership i.e. the reading of a daily newspaper at least four times a week and a Sunday newspaper at least three times a month. Of the individual daily papers the *Daily Telegraph* is the most widely read in both the upper and lower grades, as in the professional works group; The *Times* and the *Guardian* follow in that order for the upper grades and in the reverse order for the lower grades, so that altogether four in five members read a serious newspaper (*Times*, *Guardian*, *Daily Telegraph*). As we have noticed in the other Civil Service classes, there is a drop in the readership of the *Times* in the lower grades and an increase in that of the *Guardian*. The next most important

Table 10.46: Scientific officer class: Readership of weekly periodicals

Periodical	Upper grades	Lower grades	All
	%	%	%
None	57	71	67
Economist	26	8	12
New Statesman	10	8	9
Spectator	5	2	3
New Society	5	5	5
Statist	1	1	1
Listener	11	11	11
Times Educational Supplement	5	4	4
Times Literary Supplement	4	2	3
(N) ¹	(206)	(197)	(403)

¹ Totals add up to over 100 because some members read more than one weekly periodical.

newspapers are the *Daily Express* and the *Daily Mail*. Negligible proportions in either the upper or lower grades read the *Sun* or one of the two daily tabloids (the *Daily Mirror* or the *Dail Sketch*). Very few read no daily newspaper at all.

The most widely read Sunday newspaper in both sample groups is the *Observer*, followed by the *Sunday Times*, the *Sunday Express* and the *Sunday Telegraph*. Again negligible proportions read no Sunday newspaper and very few read the Sunday tabloids (*Sunday Citizen*, *News of the World*, the *People*, or the *Sunday Mirror*). Fewer and narrower differences occur between the upper and lower grades in the case of Sunday newspapers. There are, however, slight decreases in the proportion of the lower grades who read the *Sunday Times*, the *Sunday Express* and the *Sunday Telegraph*, and a slight increase in the proportion who read the Sunday tabloids. The average number of daily and Sunday newspapers read by the scientific officer class is considerably less than among the administrative class.

Our exploration of the personal and social background characteristics of the scientific officer class in relation to newspaper reading seems to reveal no important differences. Membership of the class itself seems to be the overriding determinant of the pattern of readership which resembles fairly closely that of the adult population in a social class and with an educational background similar to that of the scientific officer class. Some interesting disparities are worth noting however. The class reads fewer different newspapers than the comparative national sample. It prefers newspapers with a politically liberal reputation. For example, 24% read the *Guardian* as against 18% of the national sample, and 48% read the *Observer* compared with 29% of the national sample. The daily middlebrow newspapers (*Daily Express*, *Daily Mail* and *Sun*), and the politically right-wing *Daily Express*, *Sunday Express*, *Daily Telegraph* and *Sunday Telegraph* are all "under represented". The way in which the class, and especially its lower grades, differs in its pattern of newspaper reading from a socially and educationally similar national sample makes it an exception within the Civil Service, and should be contrasted particularly with the case of the

professional works group (Chapter VII p. 251), where the right-wing daily and Sunday press is "over represented".

Details concerning the readership of various non-scientific weekly periodicals are set out in Table 10.46. Rather more than half of the upper grades and nearly three quarters of the lower grades read none of the periodicals listed. Nevertheless, these non-scientific journals are more widely read by the scientific officer class than by any other of the scientific and technical classes in the Civil Service. Only the legal and administrative classes have higher proportions who read these particular periodicals. As we have noticed in the case of the other classes, there is a fall in the proportions who read periodicals among the lower grades. *The Economist* is the most widely read weekly among the upper grades (about one in four) but there is a considerable drop in the readership of this journal among the lower grades where it is joined by the *Listener* as the most read periodical.

There was little evidence of a political factor determining reading habits, i.e. readers of right-wing daily or Sunday newspapers did not disproportionately read right-wing periodicals, and vice versa.

It should be emphasised however, that the list of periodicals is confined to non-scientific journals. Presumably the scientific officer class are more serious readers of specialised scientific and professional journals.

Chapter XI

The Experimental Officer Class

THE CLASS

Function

The experimental officer class formally occupies an intermediate position amongst the scientific classes in responsibility, authority, pay and entry requirements. Its official duties are to assist the scientific officer class under its general guidance in the more detailed organisation and execution of fundamental research or on developments arising from results of research, and on the advisory and inspectoral tasks concerned with the statutory responsibilities of departments. Thus the range of work covered by the experimental officer class is as wide as that cited for the scientific officer class in Chapter X. In practice, as the Management Consultancy Group discovered, many members work as part of a team composed of staff from other scientific and technical classes, and are frequently allocated the same responsibilities as members of higher or subordinate scientific and technical classes: "the jobs of some chief experimental officers could not be readily distinguished from those of some principal scientific officers; we also saw some experimental officers engaged in work similar to that performed by some senior scientific officers and scientific assistants were not infrequently regarded as interchangeable with assistant experimental officers Work was often allocated to individuals on the basis of experience and ability rather than by reference to the duties formally laid to each class".¹ Moreover, in two ways the work was frequently remote from "pure" scientific research, inspection or consultancy. First, it is often concerned with applied science so that a basic grade engineer "was regarded as virtually interchangeable with an experimental officer".² Second, from the grade of experimental officer upwards many members become increasingly concerned with the costing, programming, personnel management and general organisation of research.

Salary, grades and tenure

There are four grades in the class—assistant experimental officer (salary £568 to £1,243 p.a.),³ experimental officer (£1,365 to £1,734), senior experimental officer (£1,977 to £2,411) and chief experimental officer (£2,571 to £2,999). Of the 7,621 members in the class on 1 April 1967 15% were temporary, a low figure for a scientific or technical class though considerably higher than that for the intermediate desk class, the executive class. Temporary staff are disproportionately concentrated in the bottom two grades—naturally enough since this is the level at which temporaries can achieve establishment through the continuous open competitions. So, to a lesser extent, are permanent women

¹ *Report of the Management Consultancy Group*, p. 43.

² *Ibid.*, p. 45.

³ Salaries as at January 1, 1966.

Table 11.1: *Experimental officer class: Grade by tenure, sex and salary*

	Chief experimental officer	Senior experimental officer	Experimental officer	Assistant experimental officer	All
	%	%	%	%	%
% of class ^{1,3}	3	23	53	21	100
% permanent ¹	99	95	87	66	85
% male ²	99	97	94	84	93
Salary	£2,571– £2,999	£1,977– £2,411	£1,365– £1,734	£568 –£1,243	
(N) ³	(237)	(1,760)	(4,059)	(1,565)	(7,621)

¹ Calculated from H.M. Treasury, *Introductory Factual Memorandum on the Civil Service*, p. 93.

² These figures were provided by the Central Staff Record and refer to permanent staff only in November, 1966.

³ Permanent and temporary staff, on 1st April, 1967.

compared with the men (Table 11.1). Figures not included show that only 13% of women as against 30% of men are chief or senior experimental officers. A substantial proportion of the women in the class have joined in recent years as opportunities for girls to take science at school and university have increased. The extent to which their youth and more recent recruitment explains their junior status is discussed below. Women make up only 7% of the permanent experimental officer class, a proportion smaller than that for the scientific assistant class, higher than that for the scientific officer class but, incidentally, under half that for their intermediate desk counterparts in the executive class. There are roughly three times as many posts in the bottom as in the top two grades. This means an average salary of £1,714 per annum¹ and an average length of service of eleven years at the experimental officer grade before promotion to senior experimental officer, as against an average wait of six years before a senior scientific officer is promoted to principal scientific officer.^{2,3}

Three sample groups were drawn from the experimental officer class. The first effectively consists of 196 male chief and senior experimental officers, sometimes referred to as the upper males; the second of 208 men, and the third of 186 women in the experimental and assistant experimental officer grades, sometimes referred to as the lower males and the lower females respectively. An additional fourth sample group, composed of the three sample groups cited immediately above and appropriately weighted,⁴ was also used as a guide to the background of the experimental officer class as a whole.

Eighty-two per cent of the class were not initially permanent on appointment to the Civil Service (differences between sample groups were negligible). This

¹ The figure was arrived at by dividing the estimated cost of the class by the estimated numbers in the class for 1967–68, according to figures on p. 53 of the *Civil Service Estimates 1967/68*.

² *Report of the Management Consultancy Group*, p. 44.

³ It should be noted that promotion to senior experimental officer depends on the availability of posts, whereas promotion from senior scientific officer to principal scientific officer is a normal career expectation.

⁴ For details of the weighting procedure see Annex I.

figure is considerably higher than for the executive class (21% of the upper and middle grades, 50% of the lower grades), and the scientific officer class (65%), but lower than for the subordinate scientific assistant class, following the usual pattern of a positive correlation with intermediate or subordinate non-desk classes.¹

Length of service

In Table 11.2 the initially permanent, initially temporary and total staff of the three sample groups are divided according to when they were first appointed and first established to the Civil Service. In the class as a whole two-thirds were appointed since the war, but the proportion within the class varies not only between upper and lower grades, but according to sex and initial tenure on appointment. Women in the lower grades have, on average, shorter service than men: 88% as against 78% of the lower males are post-war appointees;² and 36% of the women as against 23% of the men among the initially temporary have joined the Civil Service since 1960. Within each sample group it is clear that the minority who were established on appointment are disproportionately post-war appointees, especially in the upper male sample group. This pattern might reflect a recent trend towards establishment on entry; or it might derive from a more rapid and frequent promotion of the initially established than the initially non-established; or it might result from the number of promoted members of the scientific assistant class who are especially likely to have been temporary on appointment and, being promotees, to have been earlier appointed than average. A considerable gap exists between the year of appointment and establishment amongst the upper males initially recruited as temporaries. Over half were first appointed, but less than a quarter first established in the Civil Service, before the war.

Method of permanent establishment to the Civil Service

Open competition accounts for the recruitment of 60% of the experimental officer class including some to established posts in the scientific assistant class, but is especially predominant for the lower grades and for women even more than men. However, open competition was responsible for the permanent establishment of only 32% of the upper males, a figure equalled by the post-war reconstruction competitions. Nomination³ contributed 23% and the limited competition 11%. In the two lower grades sample groups, nomination, limited competition and other methods have supplied only small proportions of the established experimental officer class. Precise details are set out in Table 11.3. It appears from Table 11.4 that open competition has become increasingly important as the method of establishment for recent recruits. Open competition recruits are disproportionately young: 47% are under thirty-three and only 6%

¹ Though initial recruitment in a temporary capacity is said to be a matter of policy, not a reflection of the quality of the entrant nor the type of employment.

² This difference is not, however, statistically significant.

³ Nomination here means that members who held temporary appointments in the scientific assistant or other supporting classes were recommended by their department for establishment. Some were promoted to the experimental officer class at the same time.

Table 11.2: *Experimental officer class: Initial tenure on appointment by year of appointment and year of permanent establishment to the Civil Service*

Year	Men										Women			
	Upper grades					Lower grades					Lower grades			
	Initially temporary		All (whatever initial tenure)		Initially permanent	Initially temporary		Initially permanent	All (whatever initial tenure)	Initially permanent	Initially temporary		Initially permanent	All (whatever initial tenure)
	Appointed	Estab-lished	Appointed	Estab-lished		Appointed	Estab-lished				Appointed	Estab-lished		Appointed
1920-29	%	%	%	%	%	%	%	%	%	%	%	%	%	%
1930-39	4	23	45	8	12	1	2	—	9	—	1	1	—	3
1940-45	49	—	20	16	—	9	—	—	13	—	3	—	—	9
1946-49	24	—	35	70	—	16	—	—	78	—	11	—	—	16
1950-59	15	77	100	20	88	35	98	100	100	100	39	99	100	88
1960-66	8	100	100	2	100	23	100	100	100	100	36	100	100	100
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(160)	(160)	(196) ¹	(196) ¹	(34)	(172)	(172)	(35)	(208) ²	(36)	(150)	(150)	(36)	(186)
									(208) ²					(18)

¹ Two respondents did not give their initial tenure on appointment.² One respondent did not give his initial tenure on appointment.

Table 11.3: Experimental officer class: Method of permanent establishment to the Civil Service

Method of permanent establishment	Men		Women	All
	Upper grades	Lower grades	Lower grades	
	%	%	%	%
Open competition	32	70	83	60
Post-war reconstruction competition	32	20	8	22
Nomination	23	8	7	12
Limited competition	11	2	1	5
Other	2	—	1	1
Total	100	100	100	100
(N)	(196)	(208)	(186)	(590)

Table 11.4: Experimental officer class: Method of permanent establishment to the Civil Service by age

Age	Open competition	Post-war reconstruction competition	Nomination	Limited competition	All ¹
	%	%	%	%	%
Under 33	47	—	4	—	29
33-50	47	90	38	27	55
Over 50	6	10	58	73	17
Total	100	100	100	100	100
(N)	(363)	(119)	(74)	(28)	(590)

¹ Includes members who were permanently established by "other" methods of whom there were too few (N=6) for separate analysis.

are over fifty as against 29% and 17% respectively of the whole class. Nominees and staff established via the limited competition are older than average, especially the latter, 73% of whom are over fifty and none under thirty-three.¹

To be nominated, or pass the limited competition for permanent establishment, usually indicates that the individual member has been promoted or transferred from another class. There is, however, little indication that these methods of establishment have introduced into the experimental officer class staff of a less privileged social and educational background. Nominees, but not those who were established by the limited competition, tend to be children of skilled manual workers (48% of nominees as against 37% of the whole class). The limited competition has served the children of skilled non-manual workers—the "white collar class". Nominees in the two lower grades sample groups disproportionately attended L.E.A. non-selective schools, but staff established

¹ Open competition entrants are generally under thirty-one on appointment as experimental officers. Nomination and limited competitions are for senior experimental and chief experimental officer posts for which applicants are usually over thirty-five.

Table 11.5: *Experimental officer class: Location*

Location	Men		Women	All
	Upper grades	Lower grades	Lower grades	
	%	%	%	%
Inner London	10	9	21	10
Outer London	14	15	20	15
North	3	5	3	5
Rest of England and Wales	69	64	49	64
Scotland	4	7	7	6
Total	100	100	100	100
(N)	(196)	(208)	(186)	(590)

through the limited competition, on the contrary, tended to have been educated at direct grant and independent fee paying schools.

Location

As for the other two scientific classes the majority (64%) of the experimental officer class work in establishments in the South and Midlands, outside London. A quarter are employed in London, 10% in headquarters posts. As for the Civil Service in general a higher proportion of women than men in the lower grades of the experimental officer class work in London (42% as against 24%). Very few serve in the North or in Scotland (Table 11.5).

Those working in inner London are often employed in headquarters posts and consequently tend to have administrative rather than research duties and to occupy higher grades. It is thus not surprising that they are older than average (32% are over fifty as against 17% of the whole class).

There is strong local recruitment in all three sample groups (i.e. including the upper male group where for reasons of promotion it might be expected to be weaker) especially among those who work in outer London and the North. In the class as a whole 64% of those working in outer London were born in the London and South East region as against 33% of the whole class; and 87% of the minority serving in the North were born there compared with 21% of the whole class.

Departmental distribution

All but 8% of the experimental officer class work for a technical ministry, particularly large numbers being employed by the Ministries of Defence and Technology (Table 11.6). Slightly fewer women than men (82% compared with 92% in the lower grades) have posts in the technical ministries: a similar difference exists in the scientific assistant class. The economic ministries employing a few staff are the Ministry of Agriculture, Fisheries and Food, and the Ministry of Overseas Development; the "other" ministries are mainly the Home Office and the Post Office.

Table 11.6: *Experimental officer class: Departmental distribution*

Type of department	Men		Women	All
	Upper grades	Lower grades	Lower grades	
	%	%	%	%
Economic	3	2	6	3
Technical	95	92	82	92
Social	1	1	2	1
Other	2	4	9	4
Total	100	100	100	100
(N)	(196)	(208)	(186)	(590)

Table 11.7: *Experimental officer class: Age*

Age	Men		Women
	Upper grades	Lower grades	Lower grades
	%	%	%
17-20	—	1	3
21-25	—	9	23
26-30	—	16	18
31-35	—	20	16
36-40	8	20	19
41-45	19	16	9
46-50	35	10	4
51-55	23	4	2
56-60	12	2	2
61-65	3	2	3
Over 65	—	1	1
Total	100	100	100
(N)	(196)	(208)	(186)
Average age ¹	49 years	38 years	34 years

¹ H.M. Treasury, *Civil Service Manpower, 1966*, Table 34.

DEMOGRAPHIC COMPOSITION

Age and marital status

The median age of an experimental officer is forty-one to forty-five; of the senior and chief experimental officers, forty-six to fifty; of men in the lower grades thirty-six to forty and of women of the lower grades thirty-one to thirty-five. (Table 11.7). The *average* age of the class and its three component sample groups falls between these ranges. Women are younger than men in the lower grades and this also occurs in the scientific assistant class; a likely explanation may be that marriage or maternity interrupts or ends a woman's career at an early age and causes a rapid turnover rate of female staff. We already know that women are, on average, appointed more recently than men in the lower grades (Table 11.2).

Table 11.8: *Experimental officer class: Marital status*

Marital status	Men		Women	All
	Upper grades	Lower grades	Lower grades	
	%	%	%	%
Single	6	19	69	18
Married	92	80	27	80
Widowed/separated/divorced	2	1	4	1
Total	100	100	100	100
(N)	(196)	(208)	(186)	(590)

Staff in the lower grades of the experimental officer class are younger than their grade and sex (and salary) counterparts in the executive class. For example, about twice as many are under thirty and only a third as many over fifty. However, the age distribution of men in the middle grades of the executive class and upper grades of the experimental officer class (the two groups are the equivalent in salary ranges) is very similar. Thus the average age of promotion to senior executive officer and to senior experimental officer is very close but whereas a higher executive officer will have waited in that grade on average for eight and a half to nine years, the average wait before promotion in the experimental officer grade is about eleven years.¹

The proportion of single and married men in the experimental officer class (Table 11.8) is similar to that of the other lower and upper grade male sample groups in the Civil Service; nor does it appear to differ much from national proportions of males in the same age ranges. However, as in other classes, the majority of women (69 %) are single, a figure lower than that for women in the lower grades of the executive class (77 %). Table 11.9 sets out the wide differences between the national and experimental officer class distribution of wives and spinsters within the same age ranges. It is also clear from Table 11.9 that in contrast with men, age does not bear much relation to the ratio of single and married women, the proportions being similar for women in both the under thirty-three and thirty-three to fifty age groups. In other words, the effect of a Civil Service career appears to be neither that the age of marriage is delayed nor that only spinsters stay on in the experimental officer class, but rather that such a career is attractive and convenient for only a small number of married women of whatever age.

SOCIAL BACKGROUND

Geographical origins

Compared with other Civil Service classes a particularly high proportion of the experimental officer class were born in London, the South and the Midlands (64 %), a figure that markedly exceeds the proportion of the national population resident there in 1921 and 1931 (47 % and 48 %). (These two census years were

¹ Figures from Tables 25 and 35 of H.M. Treasury, *Civil Service Manpower*, 1966, October, 1966.

Table 11.9: Women in the lower grades of the experimental officer class; Great Britain, female population¹; and Great Britain, economically active female population²: Age by marital status

Marital status	Women in the lower grades of the experimental officer class				Great Britain, female population ¹				Great Britain, economically active female population ²
	Under 33	33-49	50 and over	All	16-32	33-49	50-65	All	16-65
	%	%	%	%	%	%	%	%	%
Single	70	72	43	69	43	9	12	22	43
Married	28	25	36	27	57	88	71	72	57
Widowed/separated/divorced	2	3	21	4	1	3	17	6	100
Total	100	100	100	100	100	100	100	100	100
(N)	(104)	(68)	(14)	(186)					

¹ Calculated from figures on pp. 2, 3 of the *Sample Census 1966, Great Britain, Summary Tables*.

² *ibid.*, p. 22.

Table 11.10: Experimental officer class: Place of birth; and distribution of the British population in 1921¹ and 1931¹

Region	Experimental officer class				Distribution of the British population: residence in	
	Men		Women			
	Upper grades	Lower grades	Lower grades	All	1921 ¹	1931 ¹
	%	%	%	%	%	%
North	5 } 22	5 } 20	4 } 18	5 } 21	32	32
East and West Riding	3 } 7	6 } 7	5 } 7	6 } 3		
North West	7	2	2			
North Midlands					24	25
London and South East	33	32	40	33		
Rest of Midlands					23	23
East	8 } 29	2 } 8	4 } 6	4 } 7		
Rest of South	6 } 9	12 } 11	6 } 7	7 } 10		
South West	9	4	8	10		
Wales	5 } 14	4 } 7	4 } 7	4 } 7	20	19
Scotland	9	11	11	11		
N. Ireland	—	—	—	—		
Abroad	3	4	6	4	—	—
Total	100	100	100	100	100	100
(N)	(196)	(208)	(186)	(590)		

¹ Calculated from Tables III and VIII of the *Census of England and Wales, 1931, Preliminary Report*.

nearest to the average year of birth of the upper male and two lower grade sample groups respectively.) Thus the North, Scotland, Wales and Northern Ireland are under-represented (Table 11.10). For example, 32% of the 1921 British population lived in the North but only 23% of the upper male members

Table 11.11: *Experimental officer class: Place of birth by highest education qualifications obtained before entry into the Civil Service*

Highest qualification before entry	Born in					
	North	London and South East	Rest of South and Midlands	Wales, Scotland and N. Ireland	Abroad	All
	%	%	%	%	%	%
University first or higher degree	25	7	9	26	42	15
Membership of a professional institution or univ. diploma	5	7	7	7	33	8
"A" level(s)	12	14	16	4	—	12
Higher National Certificate or Higher School Certificate	27	25	18	39	9	24
Ordinary National Certificate	2	4	1	3	—	2
"O" level(s)	24	29	36	16	4	28
All other qualifications	4	5	4	2	9	4
No qualification	1	10	10	2	4	7
Total	100	100	100	100	100	100
(N)	(118)	(205)	(171)	(70)	(26)	(590)

were born there; under-representation of the North is even more acute in the lower grades. Eleven per cent of the experimental officer class were born in Scotland, Wales or Northern Ireland compared with 19%–20% of the present British population born between 1921–31.

We have noted the extent and nature of local recruitment to the experimental officer class. The most obvious explanation for the high proportion of staff born in the South, London, and Midlands is the particularly high proportion who work there; similarly the larger fraction of female as against male lower grade staff born in the London and South East area is probably due to the greater proportion posted in inner and outer London, as well as women's generally more limited opportunity for geographical mobility.

Specific geographical origins have not noticeably channelled a particular social class or age group into the experimental officer class, but they do contribute members with differing educational attainments (Table 11.11). The pre-entry qualifications of those born in the North, Wales, Scotland or Northern Ireland or abroad, are considerably higher than those of the more locally recruited staff born in London, the South and Midlands. The former are disproportionately graduates; the latter, relatively poorly qualified. For example, 44% and 50% of staff born in London and the South East, or in the rest of the South and Midlands, respectively had "O" level(s) or less on entry into the Civil Service, compared with only 29%, 20% and 17% of those who were born in the North, Wales, Scotland, or Northern Ireland, and abroad. These variations in pre-entry qualifications cannot be attributed to differences between the same groups in age or length of service.

Social class origins

Thirteen per cent of the experimental officer class are the children of civil servants, the proportion varying little between component sample groups.

The median member of the experimental officer class has a "white collar" (social class III (i)) background and has thus climbed one rung in the social class hierarchy by entering an occupation in the Registrar General's social-class II (Table 11.12). The social origins of men in the upper and lower grades

Table 11.12: *Experimental officer class and British inspectorial, supervisory and other non-manual (higher grade) workers born 1920-29¹: Social class origins (father's occupation)*

Father's occupation	Men		Women		British inspectorial, supervisory and other non-manual (higher grade) workers born 1920-29 ¹
	Upper grades	Lower grades	Lower grades	All	
	%	%	%	%	%
I Higher professional and managerial	6	7	18	8	38
II Intermediate professional and managerial	30	26	35	28	
III (i) Skilled non-manual	13	16	15	15	45
(ii) Skilled manual	39	38	21	37	
IV Semi skilled	4	10	6	7	17
V Unskilled	4	1	2	1	
Other	5	2	3	4	
Total	100	100	100	100	100
(N)	(196)	(208)	(186)	(590)	(47)

¹ D. V. Glass and J. R. Hall, *loc. cit.*, p. 187.

are very similar. The age distribution of staff according to their social class background reveals few differences, except for the lower than average age of the small minority whose fathers are or were semi-skilled and unskilled workers (41% of them compared with 29% of the whole class are under thirty-three). There is no evidence that staff from any particular social class have been promoted more frequently or rapidly within the experimental officer class. With the exception cited immediately above, the social composition of the class has remained stable over many years.

As in other Civil Service classes the women are considerably more middle class (social classes I and II) in origin than their male grade equivalents; the median lower grade female member is from social class II, 53% being middle class in background compared with 33% of men in the lower grades and 36% of the whole class.

Table 11.12 also shows that the experimental officer class is no more middle class in origins than the national population of a similar social status and age, although fewer are the children of semi and unskilled workers.

EDUCATIONAL BACKGROUND AND QUALIFICATIONS

Three aspects of the educational background of the experimental officer class are shown in Tables 11.13, 11.14 and 11.15. The tables indicate similarities in the pattern of educational attainment and of standard of schooling over the whole class; persistent and marked differences within the class between upper and lower grades, male and female members; and similarly persistent differences between the experimental officer class and its intermediate equivalent, the executive class.

Table 11.13: *Experimental officer class: Total and highest educational qualifications obtained before entry into the Civil Service*

Qualifications before entry	Men				Women		All
	Upper grades		Lower grades		Lower grades		Highest qual.
	Total quals.	Highest qual.	Total quals.	Highest qual.	Total quals.	Highest qual.	
	%	%	%	%	%	%	%
University higher degree	2	1	—	—	3	3	1
University first degree	21	20	10	10	30	28	14
Dip. tech.	1	—	2	—	—	—	—
University diploma	8	1	2	4	6	1	3
Membership of a professional institution	9	8	3	3	2	1	5
"A" level(s)	1	—	19	15	44	32	12
Higher National Certificate	15	—	14	—	1	—	—
Higher School Certificate	36	32	19	22	33	19	24
Ordinary National Certificate	14	1	14	3	3	1	2
"O" level(s)	51	18	68	33	82	13	28
City and Guilds certificate	8	—	4	—	1	—	—
Royal Society of Arts examination	3	6	2	4	3	—	4
Industrial apprenticeship	11	—	10	—	—	—	—
Other	8	—	9	—	3	—	—
No qualification	12	12	5	5	2	2	7
Total	*	100	*	100	*	100	100
(N)	(196)	(196)	(208)	(208)	(186)	(186)	(590)

* Totals add up to over 100 because most staff possessed more than one qualification.

Table 11.14: *Experimental officer class: Type of full-time school last attended*

Type of school	Men		Women	All
	Upper grades	Lower grades	Lower grades	
	%	%	%	%
Secondary modern	5	8	2	7
Comprehensive	—	1	—	—
Technical	16	12	2	13
L.E.A. grammar	50	54	69	54
Direct grant	16	11	11	12
Public school and other	—	—	—	—
fee paying	11	9	10	10
Schools abroad	1	4	4	3
Other	1	1	2	1
Total	100	100	100	100
	%	%	%	%
Day school	95	94	90	94
Boarding school	5	6	10	6
Total	100	100	100	100
(N)	(196)	(208)	(186)	(590)

The present minimum qualifications for direct entry into the experimental officer class are two "A" levels or, for candidates over twenty-two who are not established members of the scientific assistant class, a degree or Higher National Certificate or an equivalent qualification in appropriate subjects. It follows that entry requires education at a selective secondary school and attendance until the age of seventeen. Substantial proportions of the experimental officer class have such an educational background: 36% possessed the

Table 11.15: Experimental officer class: School leaving age

School leaving age	Men		Women	All
	Upper grades	Lower grades	Lower grades	
	%	%	%	%
13 and under	2	—	—	1
14	6	4	1	5
15	11	9	2	8
16	31	32	11	30
17	22	20	22	21
18	22	26	49	27
19 and over	7	8	15	8
Total	100	100	100	100
(N)	(196)	(208)	(186)	(590)
Average school leaving age	16·7 years	16·8 years	17·6 years	16·8 years

H.N.C., H.S.C., or "A" levels as their highest qualification on entering the Civil Service. Fifty-four per cent attended a local authority grammar school and 51% left school at sixteen or seventeen. Indeed, the typical (median) member of the experimental officer class left a local authority grammar school at seventeen and held the H.N.C. or H.S.C. on entry into the Civil Service.

There are however two other groups within the class which may be distinguished by their educational attainments and background: 39% had no more than "O" levels when they first joined the Civil Service; 20% attended secondary modern, comprehensive or technical schools; and 14% left school at fifteen or earlier. At the other extreme there exists a particularly well qualified and educated group: 23% had obtained a "higher" qualification—a university degree or diploma, a dip. tech. or membership of a professional institute on entry into the Civil Service. A similar proportion—22%—attended direct grant or independent fee paying schools; and 35% of the class did not leave school until eighteen or later.

Membership of these three "groups" obviously overlaps. Clearly some staff left a non-selective secondary school at sixteen and others, with only "O" levels, attended a local authority grammar school. However, there is a correlation between qualifications, type of schooling, and school leaving age. Those who possessed the Ordinary National Certificate or qualifications lower than "O" levels on entry were more likely to have attended local authority non-selective schools (55% to 80%, against 20% of the class). Members with "A" levels were concentrated amongst grammar school leavers; and the minority with university degrees went disproportionately to a direct grant or independent fee paying school (29%) compared with the whole class (22%).¹

¹ That relatively poorly qualified staff with only "O" levels before entry should disproportionately have attended an L.E.A. grammar school is probably a correlation caused by the lower than average age of both staff with "O" levels and attendants at an L.E.A. grammar school; the importance of age as a factor in the pattern of educational background within the class and between classes will be discussed later.

Table 11.16: *Experimental Officer Class: Highest educational qualification obtained before entry into the Civil Service by type of full-time school last attended*

Type of school	University higher and first degree	Membership of a professional inst.; univ. diploma and dip. tech.	"A" level(s)	H.N.C. and H.S.C.	O.N.C.	"O" level(s)	All other qualifications	No qualification	All
	%	%	%	%	%	%	%	%	%
Secondary modern, comprehensive or technical	7	22	9	16	80	14	55	66	20
L.E.A. grammar	57	41	78	55	1	66	17	6	54
Direct grant, public, and other fee paying	29	22	13	26	19	20	18	20	22
Schools abroad and other	7	15	—	3	—	—	10	8	4
Total	100	100	100	100	100	100	100	100	100
(N)	(121)	(37)	(91)	(144)	(11)	(129)	(20)	(37)	(590)

Although in this case the differences are slight, men in the upper grades were better educated than those in the lower grades. Twenty-four per cent as against 14% had "higher" qualifications on entry; 36% as against 42% had only "O" levels or below. Their school leaving age is very similar; but 27% of the upper males compared with 20% of the lower males attended a direct grant or independent fee paying school.

Educational differences between men and women of the same (lower) grades were much greater. The women were consistently and markedly better qualified, left school later and were less often educated at a non-selective school. Thirty-three per cent of them possessed "higher" qualifications on entry compared with 23% of the whole class and 17% of their male colleagues. Their median school leaving age was eighteen, a year older than that of the lower males. Only 5% went to a non-selective school; 69% attended a local authority grammar school as against 54% of both the lower males and the class as a whole. It is common to all the sample categories where a comparison between the sexes is feasible, for the female members to be the better qualified and educated; but only in the experimental officer class is this difference such that women in the lower grades are better qualified on entry, later school leavers and less likely to have attended non-selective schools than men in the *upper* grades.

The experimental officer class is exceptionally well qualified and educated for a class of intermediate authority and responsibility. Members of the experimental officer class typically left school a year later than members of equivalent grades and the same sex in the executive class. Thirty-five per cent of the men in the lower grades of the executive class were completely unqualified on entry compared with only 5% in the experimental officer class. The proportion of graduates in the whole executive class is much smaller, as is the proportion in its lower grades that went to direct grant and independent fee paying schools. The higher proportion of promotees in the executive class is a major reason for its inferior standard of education although, as the following paragraphs explain, other factors are involved. In fact apart from the very small membership of professional institutions found in the experimental officer class, the pre-entry qualifications are better, school leaving age later, and type of school attended more selective amongst its lower grades than amongst even the lower grades of the professional works group. The other two scientific classes are similarly

better qualified and educated than their counterparts in authority amongst the desk and technical classes.

Three factors may account for these differences in educational background between upper and lower grades,¹ between men and women, and between the experimental officer and executive classes. Faster and/or more frequent internal promotion of the men with the better qualifications or of those who come from direct grant or independent fee paying schools might explain the slight differences between men in the upper and lower grades in these two respects. A crude means of comparing promotion of staff with different educational backgrounds is to divide members into groups according to their year of establishment in the Civil Service and further subdivide them according to their educational background, and then to compare the proportions now in the upper grades. But this comparison shows that neither type of school attended nor pre-entry qualifications have any significant or consistent bearing on present incumbency of posts in the upper grades.

A more likely related factor is age, because there exist considerable age differences between the experimental and executive classes, and between sample groups within the experimental officer class, and changing trends in the educational background of recruits would become evident in different age groups. Tables 11.17 and 11.18 give the age structure of members distinguished according to their highest pre-entry qualification, and type and length of schooling. Those who left school at fifteen or under, whose highest pre-entry qualifications were below "O" level standard and who attended non-selective secondary schools are older than average for their class. This might explain the educational difference between the experimental officer and (older) executive classes, and between women and men (who are older) in the lower grades.

However, if the age factor partly explains the predominance of the *poorly* educated and qualified in certain classes and sample groups, it does not easily explain the relatively high proportion of those with *higher* qualifications, a school leaving age of eighteen, and an education at a selective school among members of the experimental officer as against the executive class, and women as against men in the lower grades. Nor does it explain why the upper grades who are older than men in the lower grades, should have the better qualifications, and the longer and more selective schooling. Indeed there is no significant association in the experimental officer class between youth and high pre-entry qualifications or selective schooling. For example, the "highly" qualified are older than average and those who went to direct grant or independent fee-paying schools disproportionately aged between thirty-three to fifty. In other words, there is a clear, if slight, trend away from the direct recruitment of the poorly qualified, the "early" school leavers and those educated at non-selective schools; but no trend towards direct recruitment of candidates with university or professional qualifications and a "privileged" education.² The trend is instead towards the recruitment of candidates with "A" levels on entry (97% of whom are under thirty-three),³ who attended an L.E.A. grammar school and left school at seventeen or later.

¹ Differences between men in the upper and lower grades are only statistically significant for educational qualifications.

² A factor affecting this trend is the usual age limit of twenty-six to thirty for entrants to the experimental officer grade, who are expected to have a degree of H.N.C.

³ Those aged thirty-three to fifty tended to have the H.N.C. or H.S.C., a qualification of a similar standard to the G.C.E. "A" level.

Table 11.17: *Experimental officer class: Highest educational qualification obtained before entry into the Civil Service, by age*

Age	University higher and first degree	Membership of professional inst., university diploma, dip. tech.	"A" level (s)	H.N.C. and H.S.C.	O.N.C.	"O" level(s)	All other qualifications	No. qualification	All
	%	%	%	%	%	%	%	%	%
Under 33	22	14	97	11	13	33	7	—	29
33-50	51	64	3	77	68	57	34	63	55
Over 50	27	22	—	12	19	9	58	37	17
Total	100	100	100	100	100	100	100	100	100
(N)	(121)	(37)	(11)	(144)	(11)	(129)	(20)	(37)	(590)

Table 11.18: *Experimental officer class: Type of full-time school last attended, and school leaving age, by age*

Age	Attended			Left school at				All ¹
	Secondary modern, technical, or comprehensive school	L.E.A. grammar school	Direct grant, public or other fee paying school	14 and under	15	16	17 and over	
	%	%	%	%	%	%	%	%
Under 33	26	36	16	—	8	29	35	29
33-50	52	51	69	65	73	56	50	55
Over 50	22	13	15	35	19	15	15	17
Total	100	100	100	100	100	100	100	100
(N)	(94)	(338)	(134)	(27)	(43)	(147)	(372)	(590)

¹ Includes staff who attended "other" schools; and one member whose school leaving age is not known.

A third factor, social origins, is related to differences in educational background within the class, and between the experimental officer and executive classes, especially the gap between men and women in the lower grades. Tables 11.19 and 11.20 indicate the expected correlation between social origins, pre-entry qualifications, school leaving age and type of school. For example, 54 % of those who attended a "privileged" school, 49 % of those with degrees and 62 % of members with other qualifications of a university or professional standard and 43 % of the "late" school leavers are middle class in background, compared with 35 % of the class as a whole. Those who left school at sixteen or under, went to a non-selective secondary school and possessed only the Ordinary National Certificate or sub-"O" level qualifications on entry, tend to be disproportionately working-class in origins.

We know that women in the lower grades are markedly more middle class in their origins than their male colleagues, although there is no evidence that the younger age group are disproportionately middle class in background. It is therefore a reasonable assumption that the higher social class origins of female staff best explains their superior educational attainments and experience. Normally the social class composition of a sample group may be explained in terms of the educational qualifications and background required. In the case of the women in the lower grades it is more plausible to explain their educational qualifications

Table 11.19: *Experimental officer class: Highest educational qualification obtained before entry into the Civil Service by social class origins (father's occupation)*

Father's occupation	University higher and first degree	Member of professional inst.; univ. diploma and dip. tech.	"A" level(s)	H.N.C. and H.S.C.	O.N.C.	"O" level(s)	All other qualifications	No. qualification	All
	%	%	%	%	%	%	%	%	%
I and II Higher and intermediate professional and managerial	49	62	43	32	—	26	38	28	35
III (i) Skilled non-manual	11	10	13	17	13	17	17	21	15
III (ii), IV and V Skilled manual, semi and unskilled	35	28	41	48	73	55	34	49	46
Other	5	—	3	2	13	2	10	2	3
Total	100	100	100	100	100	100	100	100	100
(N)	(121)	(37)	(91)	(144)	(11)	(129)	(20)	(37)	(590)

Table 11.20: *Experimental officer class: Type of full-time school last attended and school leaving age, by social class origins (father's occupation)*

Father's occupation	Attended			Left school at				All ¹
	Secondary modern, technical or comprehensive school	L.E.A. grammar school	Direct grant, public or other fee paying school	14 and under	15	16	17 and over	
	%	%	%	%	%	%	%	%
I Higher professional and managerial	7	5	14	2	4	6	9	7
II Intermediate professional and managerial	9	28	40	6	36	18	34	28
III (i) Skilled non-manual	14	15	20	14	14	17	15	15
III (ii) Skilled manual	58	40	18	62	44	44	31	37
IV and V Semi and unskilled	9	11	3	11	2	11	8	9
Other	3	2	5	5	—	4	3	3
Total	100	100	100	100	100	100	100	100
(N)	(94)	(338)	(134)	(27)	(43)	(147)	(372)	(590)

¹ Includes staff who attended "other" schools; and one member whose school leaving age is now known.

and background in terms of their social class origins. There is no reason why one-third of the women in the lower grades with "higher" qualifications should choose to enter the experimental officer class unless they regard their job as short term i.e. from a non-career standpoint.¹

HIGHER EDUCATION

Nearly one in five of the experimental officer class have had some form of higher education compared with 4% of the men in the middle grades of the

¹ Alternatively the women's higher qualifications may be explained by their tendency to take biological sciences. The limited openings in this sphere and the keen competition for them may mean that women graduates are more willing to take jobs in the experimental officer class.

Table 11.21: *Experimental officer class: Institution of higher education*

Institution of higher education	Men		Women	All
	Upper grades	Lower grades	Lower grades	
	%	%	%	%
University full-time	18	10	31	14
University part-time and other institutions full or part-time	9	2	4	4
None	73	88	65	82
Total	100	100	100	100
(N)	(196)	(208)	(186)	(590)

Table 11.22: *Graduates in the experimental officer class*; and natural and applied science graduates of 1936 and 1954: Class of 1st university first degree*

Class of degree	Experimental officer class*				Natural and applied science students graduating in	
	Men		Women	All	1936 ¹	1954 ¹
	Upper grades	Lower grades	Lower grades			
	%	%	%	%	%	%
First	2	4	3	3	16	12
Upper second	2	12	11	8	} 29	} 48
Undivided second	15	4	5	9		
Lower second	8	16	18	13		
Other	73	64	64	68	55	40
Total	100	100	100	100	100	100
(N)	(52)	(25)	(66)	(144)	(2,050)	(3,270)

* i.e. all members who obtained a university first degree, whether by full or part-time study at a university or any other institution of higher education. The Diploma of Technology counts as a degree. The university diploma, or failure to obtain a degree after attendance at university, does not. The figures ignore higher degrees or 2nd university first degrees.

¹ *Report of the Committee on Higher Education (Robbins Report)* Appendix IIA, pp. 144, 146, H.M.S.O., Cmd. 2154-IIA, London, 1963.

executive class. The details are set out in Table 11.21. A familiar pattern repeats itself. Men in the upper grades are more likely to have a degree than men in the lower grades (27% compared with 12%) and the proportion of graduates among the women (35%) is higher than among the men, and in this case not only in the same grades but compared with men in the upper grades. On the other hand there are no significant sex differences in the class of degree obtained by the graduates, though it should be noticed that 16% of the men who are graduates in the lower grades possess first or upper seconds compared with only 4% of men who are senior or chief experimental officers. The general standard of degrees attained by graduate experimental officers is poor. Only a third have anything

Table 11.23: *Experimental officer class: Institution of higher education by age, and social class origins (father's occupation)*

Age	Attended			All
	University full-time	University part-time or other institutions of higher education, full or part-time	No institution of higher education	
	%	%	%	%
Under 33	23	20	30	29
33-50	52	49	53	55
Over 50	24	31	17	17
Total	100	100	100	100
Father's occupation				
	%	%	%	%
I Higher professional and managerial	8	7	7	7
II Intermediate professional and managerial	41	18	26	28
III (i) Skilled non-manual	10	6	16	15
(ii) Skilled manual	26	54	40	37
IV and V Semi and unskilled	9	11	8	9
Other	5	3	3	3
Total	100	100	100	100
(N)	(115)	(29)	(446)	(590)

higher than a third class degree. As may be seen from Table 11.22 the average class of degree held by graduates in the class is of a lower standard than that of the general run of graduates in the natural and applied sciences.¹

Graduates in this class are slightly older than non-graduates (Table 11.23). This partly explains a higher proportion of graduates among men in the upper compared with the lower grades. However another factor here is the higher probability of promotion into the upper grades of men with degrees. Thus 67% of the graduates as against 56% of the non-graduates first appointed to the Civil Service during the war now hold posts in the upper grades. The comparable figures for those established in the post-war period are 58% and 36% respectively.

The higher proportion of women than men in the lower grades who are graduates is related to social class origin. Those with middle class antecedents are more likely to have attended full-time at a university (Table 11.23). However it should be noted that non-university institutions of higher education and part-time study at universities has provided an educational avenue for staff from working class families; 65% of the small minority of graduates who attended part-time at university are the children of manual workers as against 46% of the class as a whole.

¹ Many of the graduates in the experimental officer class were originally candidates for the scientific officer class whose class of degree was below the minimum standard required.

Table 11.24: Graduates in the experimental officer class: Main subject(s) studied for 1st university first degree

Subject ¹	Men		Women	All
	Upper grades	Lower grades	Lower grades	
	%	%	%	%
Natural science	68	84	85	77
Applied science	30	16	—	19
Social science	—	12	12	7
Arts/humanities	4	4	5	4
Other	4	4	9	5
(N) ²	(53)	(25)	(66)	(144)

¹ For the precise subjects covered by the categories, see Table 3.50.

² Totals add up to over 100 because the main subjects studied by some staff covered more than one field.

Table 11.25: Graduates in the experimental officer class: University attended

University	Men		Women	All
	Upper grades	Lower grades	Lower grades	
	%	%	%	%
Oxford or Cambridge	4	12	5	8
London	15	4	35	13
Welsh and English provincial	38	56	23	46
Scottish	11	12	26	12
Irish and foreign	—	8	11	3
Other ¹	32	16	12	19
(N) ²	(53)	(25)	(66)	(144)

¹ C.A.T.'s, Regional Colleges of Education, etc.; and university part-time students.

² Totals add up to over 100 because a few members attended more than one university for their 1st university first degree.

The probable explanation for the lower standards of degrees among men in the upper as compared with the lower grades is not to be found either in age or in disparate chances of promotion for graduates with different classes of degree, but partly in the greater proportion of graduates in the upper grades who were not full-time university students and partly in the likelihood that older staff with better classes of degree have been promoted into the scientific officer class.

Details concerning attendance at a particular university or university groups and the subjects studied for first degrees are set out in Tables 11.24 and 11.25. The majority, especially among the lower grades, read a natural science with maths and physics as the most important individual subjects followed by chemistry and, particularly among women, botany and zoology. About one in five studied a technology and there are more of these among the men in the upper than lower grades.

Table 11.26: Experimental officer class: Field of employment before joining the Civil Service

Field of employment	Men		Women	All
	Upper grades	Lower grades	Lower grades	
	%	%	%	%
None	30	42	54	40
Industry	42	41	22	47
Commerce	17	11	5	
Education	9	1	12	4
Local government	4	1	2	2
Armed forces and local uniformed services	6	11	2	9
Communications	2	3	2	14
Social services	1	1	4	
Agriculture, forestry, and fishing	2	4	2	
Other	10	8	12	
(N) ¹	(196)	(208)	(186)	(590)

¹ Totals add up to over 100 because some members were employed in more than one field before entering the Civil Service.

The typical graduate in the experimental officer class took his degree at an English provincial or Welsh university as did the graduates in the scientific officer class and professional works group. Very few studied at Oxford or Cambridge. One in five took their degrees through a teacher training college, college of advanced technology or regional college of education. There are some marked differences between the sample groups: 32% of those in the upper grades studied at a non-university institution; and London university and the Scottish universities have contributed a greater number of women than the Welsh and English provincial universities.

OCCUPATIONAL EXPERIENCE

Previous field of employment

The various occupations in which members of the class have worked before they joined the Civil Service are set out in Table 11.26. The 40% who have had no job outside the Civil Service are, not surprisingly, younger than average and are concentrated in the lower rather than the upper grades. There are more women than men among them. The class as a whole has a proportion of members without occupational experience outside the Civil Service similar to that for the scientific officer class, higher than that for any of the technical classes and lower than that for the executive class.

The social and educational backgrounds of those with and without outside occupational experience are similar. However, there are three types of employment which tend to act as sources of recruitment into the class for particular socio-educational groups. Particularly well-qualified staff from middle or "white collar" social class backgrounds come in from the field of education (Table 11.27). The armed forces and local uniformed services are a source of staff with relatively

Table 11.27: *Experimental officer class: Field of employment before joining the Civil Service by highest educational qualification obtained before entry into the Civil Service and by school leaving age*

Highest qualification before entry	No previous employment	Previously employed in the field of				All ¹
		Industry and commerce	Education	Local government	Armed forces etc.	
	%	%	%	%	%	%
University higher or first degree	15	13	59	—	2	15
Membership of a prof. inst., univ. diploma, Dip. Tech.	3	10	12	35	14	8
"A" level(s) Higher National Certificate, Higher School Certificate, Ordinary National Certificate	46	38	22	17	32	38
"O" levels	29	25	4	43	36	28
All other qualifications	3	6	—	—	6	4
No qualification	5	7	3	6	13	7
Total	100	100	100	100	100	100
School leaving age						
	%	%	%	%	%	%
14 and under	—	7	3	6	12	6
15	6	12	3	6	13	8
16	25	35	21	55	39	30
17 and over	69	46	73	23	36	56
Total	100	100	100	100	100	100
(N)	(247)	(248)	(44)	(16)	(36)	(590)

¹ Includes 86 members who were previously employed in "other" and miscellaneous fields of employment.

poor qualifications and of working class background. Local government has tended to supply staff of middle and lower middle class origins who are non-graduates but hold some kind of professional qualification, university diploma or dip. tech. when they enter the Civil Service.

Educational qualifications after entry

A higher proportion of the experimental officer class have gained some kind of qualification after joining the Civil Service than have any other class. Two in every three have obtained a post-entry qualification, the proportion being highest in the lower grades (Table 11.28). These qualifications were moreover of an advanced standard: 26% of the class have taken a degree or a professional qualification after having already obtained an H.N.C. or "A" level since joining. There is a marked contrast here with the equivalent desk class: only about one in five of the executive class of equivalent grade and sex have gained post-entry qualifications and most of these are at or below "O" level standard.

The minority of members who have gained no qualifications since joining the Civil Service differ significantly from their colleagues in only one respect—they tend more frequently to have middle class antecedents. As may be seen from Table 11.29, 44% were born into social classes I and II compared with 35% of the class as a whole. In other words it is more typical for those of working class origins than for those from middle class families in the experimental officer class to work for further educational qualifications during their careers (Table 11.29).

Table 11.28: *Experimental officer class: Total and highest educational qualifications obtained after entry into the Civil Service*

Qualification after entry	Men				Women		All
	Upper grades		Lower grades		Lower grades		
	Total quals.	Highest qual.	Total quals.	Highest qual.	Total quals.	Highest qual.	Highest qual.
	%	%	%	%	%	%	%
University higher and first degree	7	7	2	2	5	5	4
Membership of a professional institution	28	28	20	20	7	7	22
Higher National Certificate, and Higher School Certificate	13	5	29	16	15	7	12
Higher National Diploma	9		5		2		
Ordinary National Diploma and Ordinary National Certificate	9		21		8		
Univ. diploma	2	19	1	32	1	33	28
Dip. tech.	2		12		20		
"A" level(s)	3		5		4		
"O" level(s)	3	41	8	29	2	48	34
City and Guilds Certificate	10		—		1		
Royal Society of Arts examinations	2		2		—		
Industrial apprenticeship	4	100	13	100	10	100	100
All other qualifications	10		29		48		
No qualification	41		*		*		
Total	*	100	*	100	*	100	100
(N)	(196)	(196)	(208)	(208)	(186)	(186)	(590)

* Totals add up to over 100 because some staff gained more than one qualification.

Class to class mobility

Permanent members in the scientific assistant class who are aged thirty-one or under are eligible to take the open competition for entry into the assistant experimental officer grade; and if over thirty-one they have the opportunity of departmental promotion, a method by which members of other classes may be transferred. One-third of the class began their career in the Civil Service elsewhere, 22% in the scientific assistant class ("promotees") and 11% in other classes ("transfers") (Table 11.30). Promotees are relatively heavily concentrated in the lower, and transfers in the upper, grades. Women in the lower grades are more likely than men to have had no other occupational experience than in the experimental officer class. Compared with the executive class, promotion and transfer is relatively unimportant, though greater than for the scientific officer class.

Table 11.29: *Experimental officer class: Highest educational qualification obtained after entry into the Civil Service, by social class origins (father's occupation)*

Father's occupation	Obtained after entry into the Civil Service					
	University higher or first degree	Membership of a prof. inst.	H.N.C./H.N.D./H.S.C./O.N.C./O.N.D.	Other qualifications	No qualification	All
	%	%	%	%	%	%
I and II Higher and intermediate, professional and managerial	35	34	24	33	44	35
III(i) Skilled non-manual	2	15	21	16	14	15
III(ii), and IV and V Skilled manual, semi and unskilled	59	48	51	48	40	46
Other	5	2	3	4	3	3
Total	100	100	100	100	100	100
(N)	(27)	(109)	(56)	(166)	(232)	(590)

Table 11.30: *Experimental officer class: Class on entry into the Civil Service*

Class on entry	Men		Women	All
	Upper grades	Lower grades	Lower grades	
	%	%	%	%
Experimental officer class	77	61	75	66
Scientific assistant class	5	31	21	22
Other classes	18	9	4	11
Total	100	100	100	100
(N)	(196)	(208)	(186)	(590)

Table 11.31: *Experimental officer class: Class on entry into the Civil Service, by age*

Age	First entered			All
	Experimental officer class	Scientific assistant class	Other class	
	%	%	%	%
Under 33	29	41	3	29
33-50	54	52	61	55
Over 50	16	7	35	17
Total	100	100	100	100
(N)	(415)	(113)	(62)	(590)

Table 11.32: *Experimental officer class: Class on entry into the Civil Service by social class origins (father's occupation); and scientific assistant class: Social class origins (father's occupation)*

Father's occupation	Experimental officer class										Scientific assistant class	
	Men					Women						
	Upper grades			Lower grades		Lower grades						
	First entered			First entered		First entered						
	Exp. class	Sc. asst. class	Other class	Exp. class	Sc. asst. class	Other class	Exp. class	Sc. asst. class	Other class	Men	Women	
I Higher professional and managerial	%	%	%	%	%	%	%	%	%	%		
II Intermediate professional and managerial	6	—	6	7	5	17	19	15	25	3	16	
III (i) Skilled non-manual	28	40	36	30	22	11	38	23	50	27	34	
(ii) Skilled manual	14	10	8	14	22	11	13	23	—	12	13	
IV and V Semi and unskilled	38	50	42	36	38	56	19	26	25	41	27	
Other	9	—	6	10	13	6	7	13	—	13	8	
Total	5	—	3	3	1	—	4	—	—	4	2	
(N)	100	100	100	100	100	100	100	100	100	100	100	
	(150)	(10)	(36)	(126)	(64)	(18)	(139)	(39)	(8)	(184)	(168)	

Promotees are younger, and transfers older than average for the class (Table 11.31). That 41% of the promotees are under thirty-three as against 29% of the class as a whole, indicates the high proportion who enter the class through the open competition. The typical age of entry is twenty-four after three years in the scientific assistant class.¹

The permanent establishment of promotees in relation to the various methods is similar to that for those whose whole service career has been confined to the experimental officer class. Transfers however, are much more likely to have been nominated into established posts (58% compared with 12% for the class as a whole).

In the lower grades of this class promotion has had the effect of widening the social composition by contributing a high proportion of staff with working class origins.

The differences between promotees, transfers and direct entrants to the experimental officer class, from the point of view of educational qualifications obtained before and after entry are shown in Table 11.33. Before entry into the Civil Service 64% of the promotees had only "O" level qualifications as against 28% of the class as a whole, and only 3% had a university or professional qualification of any sort. However there is a marked contrast between the promotees and the scientific assistant class from which they have been recruited, in the proportions who have gained qualifications *since* entering the Civil Service. Only 17% of the promotees have not done so, compared with 61% of the scientific assistant class. Most of these post-entry qualifications are at the H.N.C. standard or below and have presumably been gained mainly while still in the scientific assistant class. There can be little doubt that the attainment of such qualifications is an important factor in class to class promotion. The probability of obtaining them seems to be related to schooling in that 22% of promotees have attended direct grant or independent fee paying schools, compared with only 13% of the scientific assistant class as a whole.

PROFESSIONAL AND LEISURE ACTIVITY

Membership of voluntary associations

The proportion of the experimental officer class who belong to various types of voluntary association is compared with a national sample in Table 11.34. Seventy-four per cent of the class belongs to some club or society devoted to leisure or social activities and a similar proportion to a work-oriented organisation. Two members out of every three belong to a staff association and nearly two-fifths to a professional body. Over half however, are not actively involved in the running of any voluntary association. Of those who are active about half participate in the organisation of leisure and social clubs and a third help to organise a non-professional work-connected association.

There are no remarkable differences within the class between either the sexes or the grades, in nominal and active membership of voluntary organisations. But compared with the executive class there is a higher membership of professional bodies. In other words the experimental officer class is more likely to have contact with specialists and professional colleagues outside the Civil Service.

¹ H.M. Treasury, *Civil Service Manpower 1966*, Table 35.

Table 11.33: *Experimental officer class: Class on entry into the Civil Service by highest educational qualification obtained before and after entry into the Civil Service*

Highest qualification before entry	Experimental officer class				Scientific assistant class
	First entered			All	
	Experimental officer class	Scientific assistant class	Other class		
	%	%	%	%	%
University higher and first degree	19	2	11	15	1
Membership of a professional inst. dip. tech., or univ. diploma	10	1	7	8	2
"A" level(s)	15	12	—	12	5
Higher National Certificate, Higher School Certificate	32	7	15	24	12
Ordinary National Certificate	1	5	3	2	1
"O" level(s)	14	64	35	28	54
All other qualifications	4	—	14	4	7
No qualification	5	8	15	7	20
Total	100	100	100	100	100
Highest qualification after entry					
	%	%	%	%	%
University higher and first degree and membership of a professional inst.	28	18	25	26	1
Higher National Certificate/ Diploma, Higher School Certificate, Ordinary National Certificate/Diploma	11	17	8	12	13
All other qualifications	23	47	25	28	24
No qualification	38	17	43	34	61
Total	100	100	100	100	100
(N)	(196)	(208)	(186)	(590)	(352)

Readership of the daily and weekly press

The single most popular daily newspaper among members of the experimental officer class is the *Daily Telegraph* (Table 11.35). This is also true for the executive class. Members of the class approximate in reading habits to the higher classes in that a larger proportion read the serious daily press (*Times*, *Guardian* and *Daily Telegraph*) than the middlebrow or tabloid daily newspapers. This reading pattern also marks the class off from the general adult population of which only a maximum of 12% read the serious daily press compared with 58% of the class. There is no single Sunday newspaper which is outstandingly popular, the *Sunday Express*, the *Sunday Times* and *Observer* all having roughly equal readership. But again the serious Sunday newspapers (*Observer*, *Sunday Times*) predominate and thus the pattern in daily press readership is repeated.

Table 11.34: *Experimental officer class and local government electors¹ Nominal and active membership of organisations and voluntary associations*

Type of organisation	Experimental officer class							Local government electors ¹
	Men				Women		All	
	Upper grades		Lower grades		Lower grades			
	Nominal members	Active members	Nominal members	Active members		Nominal members	Active members	
None	% 4	% 55	% 5	% 51	% 9	% 56	% 52	% X
Professional bodies connected with work	44 } 79 66 }	3 } 20 18 }	37 } 76 66 }	3 } 18 16 }	23 } 70 62 }	1 } 14 13 }	38 } 77 66 }	X 27
Other associations connected with work								
Clubs and societies connected with social and leisure activities	76	21	74	23	70	21	74	17
Religious and Church connected organisations	16	11	13	9	12	9	14	10
Civic groups	32	7	25	6	9	2	26	7
Associations connected with education and training	13	4	19	7	30	9	18	5
Public bodies and committees	2	1	1	1	1	1	1	1
Other associations connected with welfare	5	2	2	2	4	1	3	3
Any other associations, societies, etc.	14	1	12	5	15	2	13	X
(N) ²	(196)	(196)	(208)	(208)	(186)	(186)	(590)	(X)

¹ M. Horton, *op. cit.*² Totals add up to over 100 because some staff were nominal or active members of more than one type of voluntary association.

Table 11.35: Experimental officer class and the British adult population¹: Readership of daily and Sunday newspapers

Daily newspaper	Experimental officer class				British adult population ¹
	Men		Women	All	
	Upper grades	Lower grades	Lower grades		
	%	%	%	%	%
Times	8	6	8	6	2
Guardian	13	11	10	11	2
Daily Telegraph	41	41	46	41	8
Daily Express	20	22	14	42	31
Daily Mail	22	21	14		16
Sun	4	3	3	12	13
Daily Mirror	8	12	5		37
Daily Sketch	2	3	1	5	7
None	5	4	10		X
Sunday newspaper					
	%	%	%	%	%
Sunday Times	27	27	30	27	8
Observer	33	30	37	31	5
Sunday Telegraph	18	17	20	18	6
Sunday Express	35	32	28	33	26
News of the World	5	7	4	16	40
Sunday Mirror	6	15	5		33
Sunday Citizen	1	2	1	12	2
People	4	13	2		39
None	11	13	12		
(N) ²	(196)	(208)	(186)	(590)	(X)

¹ Institute of Practitioners in Advertising, *National Readership Survey*, October, 1964 to March, 1965, London.

² Totals add up to over 100 because some members read more than one daily or Sunday newspaper.

Age, education and social origin do not appear to have any marked effects on the readership of newspapers among the experimental officer class except in two respects. Graduates tend more than others to read the *Guardian* and *Observer*, and readers of the Sunday and daily tabloids tend to be younger, less well educated and of working class background.

About one in five in the class read a non-specialist periodical, slightly more choosing a "cultural" non-political journal than one devoted to current political and economic affairs (Table 11.36). This is a common pattern for the scientific and technical classes. The typical member of the executive class is more likely to read one of the listed weekly journals. Those in the experimental officer class who do read these journals, especially those dealing with political and economic affairs, tend to be middle class graduates. They are also more likely to read the serious newspapers. For example, 70% of those who read the *Listener*, also take the *Observer* or *Sunday Times*, compared with 55% of the class as a whole.

Table 11.36: *Experimental officer class: Readership of weekly periodicals*

Periodical	Men		Women	All
	Upper grades	Lower grades	Lower grades	
	%	%	%	%
None	76	79	77	78
Economist	4	6	3	5
New Statesman	4	3	6	3
Spectator	2	1	2	1
New Society	3	1	4	2
Statist	1	—	1	—
Listener	13	8	6	—
Times Educational Supplement	2	7	6	—
Times Literary Supplement	7	4	4	—
(N) ¹	(196)	(208)	(186)	(590)

¹ Totals add up to over 100 because some staff read more than one periodical.

Chapter XII

The Scientific Assistant Class

THE CLASS

Function

Members of the scientific assistant class form the third of the three scientific classes, in theory supplementing and working under the experimental officer class. Their duties include the installation of scientific apparatus, the preparation of materials, undertaking tests and experiments and the subsequent computation and writing up of factual reports. In practice, as is pointed out in the report of the Management Consultancy Group,¹ many members work in teams composed of staff from the experimental officer, scientific officer and technical works classes and the professional works group. In these cases the duties and responsibilities of some members of the scientific assistant class cannot easily be distinguished from those in the lowest grade of the experimental officer class; indeed in some work scientific assistants are not infrequently regarded as interchangeable with assistant experimental officers.²

Salary, grades and tenure

There are two grades within the class: scientific assistant (£396 to £985 p.a.) and senior scientific assistant (£1,031 to £1,359 p.a.). No other class in this Survey has as high a proportion of temporary staff—51 %; and this does not give the full picture of the total number employed as “temporaries” since many temporaries are also part-timers and these have therefore been counted as half Table 12.1. The great majority of temporaries are in the scientific assistant grade, partly reflecting the rule that members must have at least one year's laboratory experience as a temporary, or comparable experience outside the Civil Service, before applying for an established post. In general, the classes with lower authority and greater technical and scientific functions have higher proportions of temporary staff; but all other classes sampled have at least 75 % who are permanent members.

Seventeen per cent of the permanent scientific assistants are women (Table 12.1), the highest proportion for any of the scientific or technical classes surveyed, but lower than that for its desk counterpart, the clerical class (45 %). Whilst women tend to be concentrated in the scientific assistant grade, the difference in the sex distribution of the two grades is not large and quite compatible with the younger average age of female staff (Table 12.9). The relative equality of opportunity for women to rise within the scientific assistant class underlines its

¹ pp. 42, 43, 44, published as Vol. 2 of this report.

² Normally, however, scientific assistants are promoted to become assistant experimental officers as they become suitably experienced and capable.

Table 12.1: Scientific assistant class: Grade by tenure, sex and salary

	Senior scientific assistant	Scientific assistant	All
	%	%	%
% of class	20	80	100
% permanent ¹	93	38	49
% male ²	89	80	83
Salary	£1,031–£1,359	£396 (at 16)– £776 (at 25)– £985	—
(N) ³	(1,171)	(2,915)	(5,726)

¹ Calculated from H.M. Treasury, *Introductory Factual Memorandum on the Civil Service*, p. 131.

² These figures were provided by the Central Staff Record and refer to permanent staff only in November, 1966.

³ Permanent and temporary staff, on 1st April, 1967.

role as a source of entrants into the experimental officer class rather than as a destination for promotees from other subordinate classes.¹

The scientific assistant class is "bottom-heavy". There are four times as many posts in the lower as in the upper grade. This keeps down the average pay of a member to £843 per annum.² In the upper grade the salary range is only £328 (i.e. £1,031 to £1,359). However, relatively young and recently recruited staff tend to rise into the experimental officer class: the average age of promotion into the assistant experimental officer grade is 24.7 and the average length of service in the scientific assistant class three years.³ The average age of promotion from scientific assistant and senior scientific assistant is 37.5 (median age thirty-five), and the average length of service 10 years (median seniority 11 years).⁴

The questionnaire was initially sent to 215 male and 215 female permanent members picked from both grades of the scientific assistant class. After unusable ineligible or unmarked replies had been discarded the two effective sample groups were reduced to 184 men and 168 women.

Of the additional combined male and female sample group⁵ 93% were initially temporary on appointment to the Civil Service. As we have said the normal pattern is that the subordinate non-desk classes have the highest initially temporary membership; but no other single class surveyed had a smaller minority first appointed in a permanent capacity than the scientific assistant class.⁶

¹ Figures supplied by the Central Staff Record for the original sample of 215 drawn from the scientific assistant class show that of the four subordinate classes, it (and the draughtsman class) contains the smallest proportions of staff who first entered the Civil Service in a lower class.

² Calculated from figures on p. 55 of the *Civil Service Estimates 1967/68*.

³ H.M. Treasury, *Civil Service Manpower, 1966*, Table 35.

⁴ H.M. Treasury, *Civil Service Manpower, 1966*, Table 36.

⁵ For details of the weighting procedure see Annex 1.

⁶ A result of the experience qualification.

Table 12.2: Scientific assistant class: Initial tenure on appointment by year of appointment and year of permanent establishment to the Civil Service

Year	Men				Women				All			
	Initially temporary		All (whatever initial tenure)		Initially temporary		All (whatever initial tenure)		Initially temporary		All (whatever initial tenure)	
	Appointed	Established	Appointed	Established	Appointed	Established	Appointed	Established	Appointed	Established	Appointed	Established
1920-29	% 2	% 2	% 2	% —	% —	% —	% —	% —	% 6	% 1	% 6	% —
1930-39	5	5	5	1	—	2	—	—	13	—	12	1
1940-45	13	—	12	—	—	19	17	—	81	99	81	—
1946-49	20	—	—	26	100	10	81	20	81	99	81	25
1950-59	28	98	81	35	23	23	—	23	81	99	81	33
1960-66	21	—	—	39	46	—	—	57	100	100	100	41
Total	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(171)	(171)	(184)	(184)	(160)	(160)	(168)	(168)	(331)	(331)	(352)	(352)

Table 12.3: *Scientific assistant class: Method of permanent establishment to the Civil Service*

Method of permanent establishment	Men	Women	All
	%	%	%
Open competition	68	72	69
Post-war reconstruction competition	13	10	12
Nomination	16	14	16
Limited competition	3	1	2
Other	1	4	1
Total	100	100	100
(N)	(184)	(168)	(352)

Length of service

A distribution of the scientific assistant class according to initial tenure on appointment is set out in Table 12.2. All of the small fraction initially permanent entered the Civil Service after the war. Over four-fifths of the rest of the class and of the class as a whole, came in after the war. The typical female member has spent a shorter time in the Civil Service than her male counterpart. Nearly half first entered the Civil Service in the 1960's as against 21 % of the male members, and over half were made permanent since 1959 compared with 39 % of the men. It appears that the war saw an influx of women into the class: only 2 % of the female sample are pre-war appointees but a higher proportion than of the male sample entered the Civil Service during the war (17 % as against 12 %). As many as three in five of the present men have, however, joined the Civil Service since 1949. This small average length of service is typical for subordinate classes; in the case of the scientific assistant class it reflects partly the opportunities for promotion into the experimental officer class (see pp. 364-367) but also the frustrations and dissatisfactions felt by the class, as indicated in the report of the Management Consultancy Group.¹ There has been a continual shortage of permanent staff (about 50 %) since 1960.²

Method of permanent establishment to the Civil Service

A substantial majority of the scientific assistant class, whether male or female were permanently established to the Civil Service through the open competitions (Table 12.3) which for the scientific assistant class are nowadays held continuously throughout the year, taking the form of an interview by a selection board appointed by the Civil Service Commission. Twelve per cent of the class entered the Civil Service by the post-war reconstruction competitions, and another 16 % were nominated to permanent establishment. Thus the scientific assistant class does not conform to the pattern for the other subordinate classes, where nomination has been the most common method of permanent establishment.

¹ p. 45.² H.M. Treasury, *Introductory Factual Memorandum on the Civil Service*, p. 132.

Table 12.4: *Scientific assistant class: Method of permanent establishment to the Civil Service by age, highest educational qualification obtained before entry into the Civil Service, and school leaving age*

Age	Open competition	Post-war reconstruction competition	Nomination	All ¹
	%	%	%	%
Under 33	63	—	5	44
33–50	32	71	40	38
Over 50	5	29	55	18
Total	100	100	100	100
Highest qualification before entry				
	%	%	%	%
Membership of a prof. inst., univ. diploma, "A" level(s)	8	5	4	7
Higher National Certificate, Higher School Certificate	10	24	11	12
"O" level(s)	66	46	14	54
All other qualifications	6	5	13	7
No qualification	9	21	58	20
Total	100	100	100	100
School leaving age				
	%	%	%	%
14 and under	5	8	33	12
15	11	8	36	14
16	28	49	18	29
17 and over	55	35	13	44
Total	100	100	100	100
(N)	(246)	(39)	(54)	(352)

¹ Includes 13 members who were permanently established via the limited, or "other" competitions.

One reason for the difference in its pattern of recruitment is that the scientific assistant class tend to be younger than the members of other subordinate classes. Table 12.4 clearly indicates that it is the younger recruits particularly who have entered through the open competitions. None of those who were established through the post-war reconstruction competitions and only 5% of the nominees are under thirty-three, but 63% of members established by open competition fall below this age limit.

There is also a clear relation between establishment by open competition and a relatively high standard of education. Table 12.4 shows that only 9% of the open competition recruits were unqualified on entry into the Civil Service compared with one in five of the whole class, 21% of the post-war reconstruction competition entrants, and 58% of the nominees. "O" level(s) predominated as the highest pre-entry qualification of open competition recruits: two thirds possessed them compared with 54% of the whole class. (Four "O" levels

including one in English Language and another in a scientific or mathematical subject are now the normal minimum qualifications for direct entry into the scientific assistant class.) However, an unusually large proportion of those established by the post-war reconstruction competitions held Higher National Certificates or Higher School Certificates as their highest pre-entry qualification.

Open competition recruits are also those who stayed at school the longest (Table 12.4). Fifty-five per cent of them were still at school at seventeen compared with only 35% of the post war reconstruction competition recruits and 13% of the nominees, of whom 69% had left school by fifteen. To what extent the differing educational backgrounds reflect the disparate age structure of the three types of recruits is discussed below.

Method of permanent establishment is related to type of school in Table 12.5. Amongst the men, nominees tend to be the products of L.E.A. non-selective schools (67% of them as against 32% of the sample group); open competition recruits and post war reconstruction competition entrants especially, tended to come from L.E.A. grammar schools. Amongst the women however, it is the nominees and even more the post-war reconstruction competition recruits, who over-represent those in the sample group educated at direct grant and independent fee paying schools. This difference between the sexes hints at further gaps in social and educational origins between older and younger members of the scientific assistant class, and suggests different *trends* in the recent recruitment of men and women.

Location

Most members of the class work in scientific establishments and thus not in London but in the rest of the South and Midlands, unlike members of the desk and technical classes. This is particularly true for men (80%), but less true for the women of whom only 56% are posted in the rest of the South and Midlands (Table 12.6). It is typical in the Civil Service whatever the class, for a higher proportion of women than men to be working in the North and in London.

The only background variable strongly related to place of work is place of birth; the extent of local recruitment for the whole class is set out in Table 12.7, there being no differences between the sexes worth recording. As is normal for a non-graduate class, there is considerable local recruitment. Only 20% of the whole class were born in Greater London and the South East, compared with 60% of those posted in London. Similarly, 71% of those employed in the North were born there.

It is perhaps not surprising that staff in London tended to be older than average; members with more responsible positions work in the departments and not the establishments. Forty-three per cent of members posted in London are over fifty compared with 18% of the class as a whole. Staff located in London also tend to have the occupational and educational background associated with the older sections of the class. For example, they are disproportionately nominees. The relatively high number of London based members, who were unqualified on entry into the Civil Service and educated at L.E.A. non-selective schools is consistent with what we know about the educational background of nominees, and also reflects their greater age.

Table 12.5: *Scientific assistant class: Method of permanent establishment to the Civil Service by type of full-time school last attended*

Type of school	Men				Women				All			
	Open competition	Post-war reconstruction competition	Nomination	All ¹	Open competition	Post-war reconstruction competition	Nomination	All ¹	Open competition	Post-war reconstruction competition	Nomination	All ¹
	%	%	%	%	%	%	%	%	%	%	%	%
Secondary modern and comprehensive	13	9	37	18	2	6	13	4	12	8	33	16
Technical	14	—	30	14	7	—	—	5	12	—	26	13
L.E.A. grammar	58	83	17	52	74	56	54	69	60	79	22	55
Direct grant	9	9	3	8	8	13	21	10	9	9	6	8
Public school and other fee paying	3	—	10	4	3	25	13	7	3	3	10	4
Schools abroad	3	—	3	3	5	—	—	4	3	—	3	3
Total	100	100	100	100	100	100	100	100	100	100	100	100
(N)	(125)	(25)	(30)	(184)	(121)	(16)	(24)	(168)	(246)	(41)	(54)	(352)

¹ Includes members who were permanently established via the limited, or "other" competitions, of whom there were too few for separate analysis.

Table 12.6: *Scientific assistant class: Location*

Location	Men	Women	All
	%	%	%
Inner London	5	8	5
Outer London	6	14	7
North	3	13	5
Rest of England and Wales	80	56	77
Scotland	6	9	6
Total	100	100	100
(N)	(184)	(168)	(352)

Table 12.7: *Scientific assistant class: Location by place of birth*

Place of birth	Located in			All
	Inner and Outer London	North	Rest of England and Wales; Scotland	
	%	%	%	%
North	7	71	17	19
London and South East	60	—	15	20
Rest of South and Midlands	18	14	41	37
Wales, Scotland and N. Ireland	6	12	25	22
Abroad	8	4	3	3
Total	100	100	100	100
(N)	(57)	(27)	(268)	(352)

Departmental distribution

Table 12.8 divides the scientific assistant class according to the types of department in which they work. Four members in five work in a technical department—mainly in the Ministry of Defence, but also in large numbers in the former Ministry of Aviation and in the Ministry of Technology. However, only 57% of the women work in a technical ministry; 29% have posts in an economic ministry (as against 11% of the men), specifically the Ministry of Agriculture, Fisheries and Food, and to a far smaller extent the Department of Education and Science. The small minority attributed to “other” ministries in fact work mainly for the Scottish Departments—especially the Department of Agriculture and Fisheries for Scotland. It is common throughout the Civil Service for a higher proportion of women than men of the same class to work for economic and social departments, rather than the technical ministries.

DEMOGRAPHIC COMPOSITION

Age and marital status

The scientific assistant class is the youngest of all the Civil Service classes (Table 12.9). The average age for men is thirty-nine and for women thirty-three. Less than one in five of the men and only 7% of the women are over fifty, and

Table 12.8: *Scientific assistant class:
Departmental distribution*

Type of department	Men	Women	All
	%	%	%
Economic	11	29	14
Technical	84	57	80
Social	—	2	—
Other	5	11	6
Total	100	100	100
(N)	(184)	(168)	(352)

Table 12.9: *Scientific class:
Age*

Age	Men	Women
	%	%
17-20	2	15
21-25	16	27
26-30	15	14
31-35	13	7
36-40	14	11
41-45	11	10
46-50	9	10
51-55	6	5
56-60	7	1
61-65	5	1
Over 65	1	—
Total	100	100
Average age ¹	39	33
(N)	(184)	(168)

¹ Calculated from H.M. Treasury, *Civil Service Manpower*, 1966, Table 34.

nearly three quarters of the female sample group is forty or under. Other subordinate classes e.g. the draughtsman and especially the technical works class have hardly any members under thirty. This contrast is the result of a tendency for the latter classes to be the summit of the career of an industrial civil servant, whereas the scientific assistant class serves as the springboard for promotion of recruits straight from school into intermediate and higher classes. It is typical in the Civil Service for women to be younger than their male counterparts in subordinate classes, partly because of a higher turnover of women as a result of marriage or maternity. Nearly a quarter of the male scientific assistant class are bachelors, a high proportion for any of the male sample groups, but quite clearly related to their young age (Table 12.10). There is a large drop in the proportion of bachelors between the under thirty-three and the thirty-three

Table 12.10: Scientific assistant class and Great Britain 1966¹: Marital status and marital status by age

Marital status	Scientific assistant class								Great Britain 1966 ¹								Econ- omically active women ²	
	Men				Women				Men				Women					
	16-32	33-49	50-65	All (16-65)	16-32	33-49	50-65	All (16-65)	16-32	33-49	50-65	All (16-65)	16-32	33-49	50-65	All (16-65)		
Single	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	57	
Married	45	10	3	23	72	60	73	68	57	11	8	27	43	9	12	22		43
Widowed/ separated/ divorced	54	89	94	76	24	29	9	24	43	87	87	71	57	88	71	72		
Total	1	1	3	2	5	11	18	8	—	2	5	2	1	3	17	6	100	
	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
(N)	(76)	(72)	(36)	(184)	(102)	(55)	(11)	(168)										

¹ Calculated from figures on pp. 2, 3 of the *Sample Census, 1966, Great Britain, Summary Tables*.² Calculated from figures in Table 5 of *Sample Census 1966, Great Britain, Summary Tables*, H.M.S.O., London, 1967.

to fifty age group (from 45% to 10%). Moreover, a comparison between male members and the male national population of the same age ranges reveals a close similarity in the distribution of marital status for any one age group and in different age groups. The greater proportion of bachelors in the national male group of sixteen to thirty-two results from the lower *average* age of the national male population aged sixteen to thirty-two compared with the *average* age of men in the scientific assistant class of the same age *range*.

As for all other female sample groups the majority of women in the scientific assistant class are spinsters (68%). Their age is not a sufficient explanation. The proportion of married women in the thirty-three to fifty age group is higher than amongst those under thirty-three, but by only 5% (29% compared with 24%) and the proportion of married women in the fifty to sixty-five age group is considerably less. Moreover, the proportion of women aged thirty-three to forty-nine who are widowed or separated is 11% (compared with 3% of a national sample in the same age group) and this also suggests that it is the nature of a career in the scientific assistant class that accounts for its high proportion of single women. It is clear also that there is no *trend* towards the employment of married women. Not unexpectedly there is a higher proportion of spinsters working in the scientific assistant class, and in any age group within it, than is found in the general female population in the corresponding age groups, or among the general female population who are economically active.

SOCIAL BACKGROUND

Geographical origins

The geographical origins of the scientific assistant class and the geographical distribution of the British population in the census year nearest to the average year of birth of the scientific assistant class, are set out in Table 12.11. Of the four main regions distinguished, the non-metropolitan South and Midlands has contributed most to the class (37%), the other three areas each providing about one in five members. The higher proportion of women than men born in the North and in London and the South East follows the higher proportion of women in the class located in these two areas and is therefore in line with the local recruitment pattern already indicated by Table 12.7. Also, local recruitment and the geographical distribution of posts for the class (Table 12.6) largely explain the nationally unrepresentative geographical origins of the class's members. The proportion of members born in the North is far lower than the proportion of the population of Great Britain living in that area round about the average year of birth of the scientific assistant class (19% compared with 32%). As a result, the non-metropolitan South is over represented among the men as is London and the South East among the women.

The educational background of members divided according to the area of their birth shows some contrasts which cannot be attributed to any other background variable like age or social class origins, nor to differing educational opportunities in the nation at large. Staff born in the North or in Scotland, Wales or Northern Ireland received a better schooling and attained higher qualifications before entry into the Civil Service than their colleagues born in the South and Midlands (Table 12.12). For example, only 4% of staff born in the North were unqualified on entry compared with 40% of those born in the London and South East area and 20% of the class as a whole. The great majority

Table 12.11: *Scientific assistant class: Place of birth; and the distribution of the British population in 1931*¹

Region	Scientific assistant class			British population 1931 ¹
	Men	Women	All	
	%	%	%	%
North	3	8		
East and West Riding	5 } 17	4 } 22	19	32
North West	6	4		
North Midlands	3	6		
London and South East	18	30	20	25
Rest of Midlands	5	5		
East	9 } 39	4 } 23	37	23
Rest of South	14	8		
South West	11	6		
Wales	8	7		
Scotland	12 } 22	13 } 20	22	19
N. Ireland	2	—		
Abroad	3	4	3	—
Total	100	100	100	100
(N)	(184)	(168)	(352)	

¹ Calculated from Tables III and VIII of the *Census of England and Wales, 1931, Preliminary Report*.

of Northerners possessed "O" level(s) on entry (83%), as against 54% of the whole class. Higher National Certificates or Higher School Certificates were held mainly by staff born in Wales, Scotland or Northern Ireland. The type of educational qualification obtained is often associated with schooling and not surprisingly staff born in the South and in the London and South East areas are more likely than their colleagues to have attended L.E.A. non-selective schools (especially secondary modern or comprehensive schools); and whereas 55% of the whole class were educated at L.E.A. grammar schools, the latter accounted for 61% and 78% respectively of members born in the North and in Wales, Scotland and Northern Ireland.

Social class origins

Eleven per cent of the scientific assistant class are the children of non-industrial Civil Servants, a figure similar to that for the experimental officer class and higher than that for any of the other three subordinate classes. This minority of 11% is younger than average, and in social and educational background closely resembles the younger sector of the class.

Table 12.13 sets out the social class origins by paternal occupation of the scientific assistant class, with that of a national sample of a similar *present* social status and age, for comparison.¹ It is particularly noticeable that women are more likely to have a middle class background than men, a phenomenon

¹ The slightly different classification of social classes used for the national sample does not invalidate our general conclusion drawn from the comparative figures.

Table 12.12: *Scientific assistant class: Place of birth by highest educational qualification obtained before entry into the Civil Service; and by type of full-time school last attended*

Highest qualification before entry	Born in				
	North	London and South East	Rest of South and Midlands	Wales, Scotland and N. Ireland	All ¹
	%	%	%	%	%
Univ. degree or diploma; membership of a prof. institution; and "A" level(s)	7	4	11	1	7
Higher National Certificate and Higher School Certificate	3	4	3	42	12
"O" level(s)	83	47	55	38	54
All other qualifications	2	6	13	3	7
No qualification	4	40	18	16	20
Total	100	100	100	100	100
Type of school					
	%	%	%	%	%
Secondary modern and comprehensive	3	34	22	2	16
Technical	17	9	14	11	13
L.E.A. grammar	61	39	49	78	55
Direct grant, public school and other fee paying	15	15	14	7	12
Schools abroad and other	3	—	—	—	3
Total	100	100	100	100	100
(N)	(70)	(84)	(110)	(76)	(352)

¹ Includes some members born outside the United Kingdom, of whom there were too few (N=12) for separate analysis.

typical of all the classes surveyed with both male and female sample groups, but especially strong for the scientific assistant class. Thus whereas the median male member is the son of a skilled manual worker, the median female member is middle class (social class II) in background. In other words, the typical man has been socially immobile and the typical woman *downwardly* mobile, between generations. Of course, members of the scientific assistant class are young, and this conclusion says nothing of the social class members (and their fathers) may reach in later years through occupation or, in the case of women in particular, marriage. A negligible proportion of staff has fathers who were unskilled manual workers. An interesting comparison may be made with the social class origins by paternal occupation of the national population in approximately the same social stratum (inspectional, supervisory and other non-manual occupations, lower grade) and born in the same decade as the typical (median) members.

Table 12.13: *Scientific assistant class, and U.K. inspectorial, supervisory and other non-manual (lower grade) workers, born 1920-29¹: Social class origins (father's occupation)*

Father's occupation	Men	Women	All	U.K. inspectorial, supervisory and other non-manual (lower grade) workers born 1920-29 ¹
	%	%	%	%
I Higher professional and managerial	3	16	5	14
II Intermediate professional and managerial	27	34	28	
III (i) Skilled non-manual	12	13	12	69
(ii) Skilled manual	41	27	39	
IV Semi-skilled	11	6	10	17
V Unskilled	2	2	2	
Other	4	2	4	—
Total	100	100	100	100
(N)	(184)	(168)	(352)	(58)

¹ D. V. Glass and J. R. Hall, *loc. cit.*, p. 187.

The scientific assistant class is much the more middle class in background, a third having fathers in social classes I and II compared with 14% of the national sample. Compared with other classes of similar responsibility and salary ranges, the scientific assistant class is relatively middle class in origins. This again identifies it as the bottom rung of a promotional ladder within the scientific classes rather than as the top rung of a ladder starting among the industrial and sub-clerical grades.

There was no correlation between social class origins and age or seniority, and no evidence of a trend either way in the social class background of the most recent and younger recruits.

EDUCATIONAL BACKGROUND AND QUALIFICATIONS

Educational qualifications before entry

The present qualifications required for entry to the scientific assistant class are a General Certificate of Education in four subjects, including English language and a scientific or mathematical subject, or equivalent qualifications, together with at least one year's experience in the type of work undertaken by members of the class, gained by service in a government department or other similar scientific establishment, or in technical branches of H.M. Forces.¹ As is made clear in Table 12.14 the predominant qualification on entry is "O" level(s). However, in the case of women particularly, a sizeable minority possessed other higher pre-entry qualifications; 17% of the men but about one third of the women had higher qualifications, most commonly the Higher National Certificate or the Higher School Certificate, and 22% of the men

¹ H.M. Treasury, *Introductory Factual Memorandum on the Civil Service*, p. 131.

Table 12.14: Scientific assistant class: Total and highest educational qualifications obtained before entry into the Civil Service

Qualification before entry	Men		Women		All
	Total qualifications	Highest qualification	Total qualifications	Highest qualification	Highest qualification
	%	%	%	%	%
University degree or diploma, dip. tech., membership of a prof. institution	3	3	3	3	3
"A" level(s)	4	3	14	14	5
Higher National Certificate	1	11	14	14	12
Higher School Certificate	11				
Ordinary National Certificate	2	53	2	1	—
"O" level(s)	60				
City and Guilds Certificate	3	8	1	2	7
Nursing qualifications	1				
Royal Society of Arts examinations	1	8	7	3	7
Industrial apprenticeship	5				
Other	6	22	10	8	20
No qualification	22				
Total	*	100	*	100	100
(N)	(184)	(184)	(168)	(168)	(352)

* Totals add up to over 100 because most members possessed more than one qualification.

but only 8% of the women were unqualified on entry. Altogether the women were better qualified before entry than their male colleagues, a situation common to all sample categories from which male and female sample groups have been taken.

The higher educational standards of the women are partly explained by their comparative youth; there is a correlation between greater age and sub "O" level or no qualifications, as Table 12.15 indicates. Of the members who had obtained post "O" level qualifications by the time they entered the Civil Service, it was those with "A" level(s), university and professional qualifications who were younger than average.

As is also shown in Table 12.15 there is a correlation between high social class origins and high educational qualifications before entry. Nearly half of the 38 members who possessed university, professional or "A" level qualifications, and 42% of those with the Higher National Certificate, Higher School Certificate or Ordinary National Certificate were clearly middle class in origin (social classes I and II). This compares with a third of the whole class and a quarter of those members unqualified on entry into the Civil Service.

School leaving age and school attended

Members of the scientific assistant class have, on average, stayed at school longer than members of the clerical, technical works or draughtsman classes, and longer even than the lower grades of the executive class (Table 12.16). The reason is not that the educational requirements for entry are stiffer, but that

Table 12.15: *Scientific assistant class: Highest educational qualification obtained before entry into the Civil Service by age and by social class origins (father's occupation)*

Age	University degree, diploma, membership of a professional institution "A" level(s)	H.N.C./H.S.C.	"O" level(s)	All other qualifications	No qualification	All
	%	%	%	%	%	%
Under 33	68	41	61	1	5	44
33-50	18	46	36	49	44	38
Over 50	14	13	2	50	51	18
Total	100	100	100	100	100	100
Father's occupation						
	%	%	%	%	%	%
I and II Higher and intermediate, professional and managerial	48	42	34	21	24	33
III (i) Skilled non-manual	5	15	10	26	13	12
III (ii), IV and V Skilled, semi and unskilled	41	43	53	48	57	51
Other	6	—	2	6	7	4
Total	100	100	100	100	100	100
(N)	(38)	(45)	(195)	(20)	(54)	(352)

the staff are so much younger. Few attended school when the minimum leaving age was still fourteen. School leavers are sometimes appointed as temporary scientific assistants with an eye to promotion into the experimental officer class; the scientific assistant class receives very few promotees itself. The average school leaving age of the class is 16.2 years, higher than that of all English and Welsh school leavers aged thirteen in 1954 (15.5 years), the year nearest to that of the average school leaving year of members of the class, among the years cited in the latest Ministry of Education statistics.¹ It is noticeable how many left school at seventeen or later (45%) and how few before the age of fifteen (12%). As in other sample categories where we have been able to compare the sexes, women in the scientific assistant class left school later than men (at, on average, 16.8 years compared with 16.2 years). Amongst the women 56% stayed on in school until seventeen or later and only 3% had left school before they reached fifteen.

The scientific assistant class maintains its educational superiority compared with other subordinate classes when we consider another aspect of education—the type of secondary school members attended. Similarly, within the class women are the better educated. The figures are set out in Table 12.17. The median members of the class went to an L.E.A. grammar school; 30% attended an L.E.A. non-selective school. Their school background is closer to that of an intermediate class, the experimental officer or executive class, than to any of the subordinate classes. The educational gap between the sexes repeats itself particularly strongly in this case. Sixty-nine per cent of the women went to an L.E.A. grammar school; only one in ten went to any other kind of local

¹ Calculated from figures on p. 32 of the Department of Education and Science, *Statistics of Education*, 1966, Vol. I., H.M.S.O., London, 1967.

Table 12.16: *Scientific assistant class and English and Welsh school leavers 1956-60¹: School leaving age*

School leaving age	Scientific assistant class			England and Wales school leavers, 1956 ¹
	Men	Women	All	
	%	%	%	%
13 and under	1	—	1	—
14	12	3	11	—
15	16	4	14	67
16	27	37	29	19
17	24	29	25	10
18	14	19	15	4
19 and over	4	8	5	—
No answer/Don't know	2	1	1	—
Total	100	100	100	100
Average	16.2 years	16.8 years	16.2 years	15.5 years
(N)	(184)	(168)	(352)	

¹ Department of Education and Science, *op. cit.*, p. 32.

Table 12.17: *Scientific assistant class: Type of full-time school last attended*

Type of school	Men	Women	All
	%	%	%
Secondary modern	18	4	16
Comprehensive	1	1	1
Technical	14	5	13
L.E.A. grammar	52	69	55
Direct grant	8	10	9
Public school, and other			
fee paying	3	7	4
Schools abroad and other	3	4	3
Total	100	100	100
	%	%	%
Day school	98	96	98
Boarding school	2	4	2
Total	100	100	100
(N)	(184)	(168)	(352)

authority school. This compares with 52% of the men who went to an L.E.A. grammar school and one third who attended other local authority schools. Also, a higher proportion of women than men attended direct grant or fee paying independent schools (17% as against 11%). Again, it is probably the lower age rather than stiffer entry requirements of the scientific assistant class that explains their better education.

Table 12.18: *Scientific assistant class: Highest educational qualification obtained before entry into the Civil Service, by school leaving age*

School leaving age	University and professional quals, and "A" level(s)	H.N.C. and H.S.C.	"O" level(s)	All other qualifications	No qualification	All
	%	%	%	%	%	%
14 and under	14	—	—	20	48	12
15	8	8	6	50	29	14
16	2	7	41	29	16	29
17 and over	76	86	52	1	6	44
Total	100	100	100	100	100	100
(N)	(38)	(45)	(195)	(20)	(54)	(352)

To some extent Table 12.19 bears out the point that the youth of the scientific assistant class partly accounts for their relatively high standard of education. Those who left school at seventeen or later are younger than colleagues who left at sixteen, who in turn are considerably younger than staff who only stayed on at school until fifteen. Those who attended an L.E.A. grammar school are far younger than those from secondary modern or comprehensive schools, though only slightly younger than the few from technical schools; those who went to direct grant or independent fee paying schools are also older than average for the class. (The latter are disproportionately aged thirty-three to fifty. For some reason a large number of them entered the Civil Service during the war, 25% of them as against 12% of the whole class.) It is reasonable to conclude that the particularly low age of the scientific assistant class contributes to its particularly good standard of education in two ways. Younger civil servants went to school when the minimum leaving age was already raised to fifteen; and the younger classes are more subject to the increasing trend within the Civil Service intermediate and subordinate classes to appoint candidates with higher educational qualifications and therefore longer schooling, often at L.E.A. grammar and technical rather than secondary modern or comprehensive schools. The relation between qualifications obtained, and type and length of schooling are shown in Table 12.18. Tables 12.16, 12.17 and 12.19 underline the developing trend towards the recruitment of staff with more and higher qualifications and longer schooling, who come from technical or L.E.A. grammar schools.

The correlation between middle class origins and possession of relatively high educational qualifications on entry to the Civil Service has already been noted, as has the relation between qualifications and length and type of schooling. It is therefore no surprise that the longer a member stayed at school, and the more selective the school, the more likely he is to come from a middle class background (Table 12.20). In the case of school leaving age the correlation is clear and positive. Forty-five per cent of staff who left school at seventeen or later come from social class I and II backgrounds as against 21% of those who left school at fifteen or earlier; 61% of the latter are the children of fathers in manual occupations compared with 45% of those who stayed at school until

Table 12.19: *Scientific assistant class: School leaving age and type of full-time school last attended, by age*

Age	Left school at			Attended				All ¹
	15 and under	16	17 and over	Secondary modern, or comprehensive school	Technical school	L.E.A. grammar school	Direct grant, public, or other fee paying school	
	%	%	%	%	%	%	%	%
Under 33	10	45	65	15	51	53	33	44
33-50	47	41	30	41	27	37	53	38
Over 50	44	14	5	44	22	10	14	18
Total	100	100	100	100	100	100	100	100
(N)	(65)	(112)	(172)	(41)	(34)	(212)	(51)	(352)

¹ Includes staff who attended "other" schools of whom there were too few for separate analysis. Three members did not indicate their school leaving age.

Table 12.20: *Scientific assistant class: School leaving age and type of full-time school last attended by social class origins (father's occupation)*

Father's occupation	Left school at			Attended				All ¹
	15 and under	16	17 and over	Secondary modern or comprehensive school	Technical school	L.E.A. grammar school	Direct grant, public, or other fee paying school	
	%	%	%	%	%	%	%	%
I Higher professional and managerial	4	5	6	1	4	5	4	5
II Intermediate professional and managerial	17	20	39	18	21	31	41	28
III (i) Skilled non-manual	14	20	7	9	22	9	14	12
(ii) Skilled manual	46	40	34	50	29	41	28	39
IV and V Semi and unskilled	15	11	11	14	20	11	7	12
Other	5	4	2	8	4	2	5	4
Total	100	100	100	100	100	100	100	100
(N)	(65)	(112)	(172)	(41)	(34)	(212)	(51)	(352)

¹ Includes staff who attended "other" schools of whom there were too few for separate analysis. Three members did not indicate their school leaving age.

seventeen. In the case of the school attended the relation is more complicated. Those of middle class origins are more likely than their colleagues to have gone to L.E.A. grammar, or to direct grant and independent fee paying schools. Those whose education was at a local authority non-selective school are disproportionately working class in origins, although the 34% who attended technical schools are more likely to be the children of skilled non-manual workers, or semi and unskilled manual workers than of skilled manual workers. Moreover, a surprisingly high proportion of those who went to direct grant and independent fee paying schools are children of manual workers (35%).

Table 12.21: *Scientific assistant class: Field of employment before joining the Civil Service*

Field of employment	Men	Women	All
	%	%	%
None	46	59	48
Industry	24	14	31
Commerce	14	13	
Education	2	2	2
Local government	4	4	4
Armed forces and local uniformed services	18	2	16
Social services	1	4	16
Communications	3	5	
Agriculture, fishing and forestry	5	2	
Other	6	13	
(N) ¹	(184)	(168)	(352)

¹ Totals add up to over 100 because some staff were employed in more than one field before entering the Civil Service.

OCCUPATIONAL EXPERIENCE

Previous field of employment

We have already noted the youthfulness of the scientific assistant class. It is therefore no surprise that about half its members had no job outside the Civil Service (Table 12.21), a very high proportion for any subordinate class, and surpassed only by the executive and administrative classes. Of the 54% of men and 41% of the women who have had other jobs most came from industry, with the armed forces and other local uniformed services next in importance for men, and commerce for women. All the other fields of employment listed including education, account for negligible proportions of members. That a greater proportion of women than of men have spent their entire working careers in the Civil Service is typical for all classes.

Within the class itself it is the older members, not unexpectedly, who are most likely to have been employed elsewhere. Only 33% of those whose only job has been in the Civil Service are over fifty compared with 56% of the whole class, 81% of those previously working in industry or commerce, and 83% of those previously employed in the armed forces or local uniformed services. The correlation between youth and lack of outside employment is partly self explanatory, and partly a result of the slight tendency during the war to recruit from other fields of employment rather than straight from school.

Educational qualifications after entry

Substantial minorities of both men and women obtained some kind of educational qualification whilst working in the Civil Service, the majority at the "O" level or O.N.C. standard, or below. More men than women gained post-entry qualifications, although the gap was only marked at the sub "O" level range (Table 12.22).

Table 12.22: *Scientific assistant class: Total and highest educational qualifications obtained after entry into the Civil Service*

Qualifications after entry	Men		Women		All
	Total qualifications	Highest qualification	Total qualifications	Highest qualification	Highest qualification
	%	%	%	%	%
University degree and dip. tech.	1	1	1	3	1
Membership of a professional institution	1		2		
Univ. diploma	—	14	1	12	13
Higher National Certificate/Diploma	7		2		
Higher School Certificate	—		1		
Ordinary National Certificate/Diploma	14	23	12	32	24
"O" level(s)	8		12		
City and Guilds Certificate	4		2		
Royal Society of Arts examination	—	63	2	54	61
Industrial apprenticeship	2		—		
Other	10		18		
No qualification	63	63	54	54	61
Total	*	100	*	100	100
(N)	(184)	(184)	(168)	(168)	(354)

* Totals add up to over 100 because some members obtained more than one qualification after entry into the Civil Service.

Table 12.23: *Scientific assistant class: Highest educational qualification obtained after entry into the Civil Service, by age*

Age	Obtained after entry into the Civil Service			
	H.N.C./H.N.D./ H.S.C./O.N.C./ O.N.D.	Other qualifications	No qualification	All ¹
	%	%	%	%
Under 33	57	62	34	44
33-50	39	33	40	38
Over 50	3	5	26	18
Total	100	100	100	100
(N)	(45)	(95)	(205)	(352)

¹ Includes 7 members who obtained, since entry, university or professional qualifications.

The attainment of qualifications during employment with the Civil Service appears to be related to youth (Table 12.23).¹ About 60% of those who gained a qualification after joining are under thirty-three compared with 44% of the whole class and 34% of those without post entry qualifications. No particular

¹ Of course there may be many older ex-members who took qualifications after entry and have been promoted to the experimental officer class.

social or educational "type" is more likely to have obtained qualifications since entry than others; but there is a relation between permanent establishment through the open competition, lack of outside occupational experience and attainment of qualifications whilst working for the Civil Service. Probably the age factor is of overriding importance; because younger members are disproportionately likely to have been established by open competition and to have worked only for the Civil Service and because younger members are most likely to have post entry qualifications, there exists a link between the three variables. We already know that a distinguishing feature of the promotee in the experimental officer class is the very high proportion who gained a qualification after joining compared with both their colleagues and those they left in the scientific assistant class (see chapter XI, p. 367 and Table 11.33).

PROFILE

It is possible at this point to construct a brief social profile of the class. Two main groups within the scientific assistant class can be distinguished:

- (a) younger staff, many under thirty-three and unmarried who entered the Civil Service straight from school aged seventeen or eighteen by the open competitions and went directly into the scientific assistant class without either an intervening outside job or service in a lower class. They possess at least "O" level qualifications, normally gained at an L.E.A. grammar school where they stayed until they were seventeen, but possibly obtained or supplemented whilst working in the Civil Service. Their background is lower middle class with fathers in skilled manual or routine non-manual occupations. Most of the women are in this group:
- (b) older members, mainly over fifty, who after an outside job in the South and Midlands transferred to the Civil Service often initially to a lower class. They possess poor or no qualifications after a near minimum period of attendance at an L.E.A. non-selective school. Their background is working class.

It is in the relatively large size of the first group and the smallness of the second that the scientific assistant class differs from other subordinate classes (although some parallels exist with the clerical class). Two related factors account for the difference:

- (i) For a subordinate class it contains relatively few promotees.
- (ii) A high proportion of the class are women. Young single women both generally, and in the Civil Service tend to be better qualified than their job really requires because many do not seek or are not awarded promotion on the assumption that they will stay in a job for only a few years.

PROFESSIONAL AND LEISURE ACTIVITY

Membership of voluntary associations

The proportion of men and women in the scientific assistant class who are nominal and active members of different types of organisation, club, society, etc. are set out in Table 12.24. The scientific assistant class follows the general pattern for subordinate classes. A relatively high proportion do not even

Table 12.24: Scientific assistant class, and local government electors¹:
Nominal and active membership of organisations and voluntary associations

Type of organisation	Scientific assistant class						Local government electors ¹
	Nominal members	Active members	Nominal members	Active members	Nominal members	Active members	Nominal members
None	%	%	%	%	%	%	%
Professional bodies connected with work	10	62	13	62	10	62	X
Other associations connected with work	12 } 50	— } 17	14 } 63	1 } 15	12 } 52	— } 17	27
Clubs and societies connected with social and leisure activities	46 }	17 }	57 }	14 }	48 }	17 }	
Religious and Church connected organisations	67	14	56	12	66	14	17
Civic groups	9	3	17	9	10	4	10
Associations connected with education and training	12	1	10	1	12	1	7
Public bodies or Committees	12	6	22	4	14	6	5
Other associations connected with welfare	1	1	1	1	1	1	1
Any other associations, societies, etc.	2	—	6	3	2	1	3
	15	5	13	3	14	5	X
(N) ²	(184)	(184)	(168)	(168)	(352)	(352)	(X)

¹ M. Horton, *op. cit.*

² Totals add up to over 100 because some staff were nominal and active members of more than one type of organisation.

nominally belong to any voluntary organisation (10%) and do not help to run any (62%). A higher proportion of the men, but not of the women, belong to a work-connected organisation rather than to a club or society devoted to leisure and social activities. None of the other types of association listed claim even as nominal members more than one in six of a sample group except for those concerned with education and training, to which 22% of the women belong. There are certain differences in the pattern of organisation membership between men and women in the scientific assistant class. As is normal for the Civil Service a higher proportion of women have nominally joined clubs and societies for leisure and social activities. It is also typical in the Civil Service (and in society as a whole) for a higher proportion of men than women who are nominal members of any type of organisation also to participate actively in the running of that organisation. As is normal for any Civil Service class, a considerably greater proportion of the scientific assistant class join associations than of the population at large.

No "type" of member can be associated with nominal or active membership of any of the categories of organisation listed; but the minority who were not even nominal members of any outside body do tend to be older, married and relatively poorly educated.

Readership of the daily and weekly press

The figures in Tables 12.25 and 12.26 for the readership of daily and Sunday newspapers, and of certain weekly journals, show that the scientific assistant

Table 12.25: Scientific assistant class, and adult population of Great Britain¹: Readership of daily and Sunday newspapers

Daily newspaper	Scientific assistant class			Great Britain ¹ 1963-64		
	Men	Women	All	Men	Women	Men and women with a terminal education age of 16-18
	%	%	%	%	%	%
Times	4	4	4	3	2	7
Guardian	9 } 38	8 } 39	9 } 38	3	2	6
Daily Telegraph	26	27	26	9	8	27
Daily Express	36	25		38	29	38
Daily Mail	19 } 57	19 } 48		19	15	24
Sun ²	6	4		16	9	6
Daily Mirror	18 } 21	11 } 13		41	34	23
Daily Sketch	3	2	19	10	7	6
None	4	5	5			
Sunday newspaper						
	%	%	%	%	%	%
Sunday Times	27 } 44	21 } 42	26 } 44	9	8	22
Observer	19	24	20	5	4	12
Sunday Telegraph	15	10	14	6	5	15
Sunday Express	44	40	43	29	27	46
News of the World	15	8		44	39	21
Sunday Mirror	21	18		36	32	22
Sunday Citizen	2	1	27	2	1	1
People	16	13		43	37	25
None	14	17	15	X	X	X
(N) ³	(184)	(168)	(352)	(7,537)	(8,386)	(2,471)

¹ Mark Abrams, *Education, social class and reading of newspapers and magazines*, p. 19.² The *Daily Herald* in 1963/64. Little change in the readership between the *Daily Herald* and *Sun* is likely.³ Totals add up to over 100 because some members read more than one newspaper.

class has a readership pattern close to that of the other three subordinate classes and remote from that of the intermediate and higher classes. For example, as for the clerical, draughtsman and technical works classes, the most popular daily newspapers are the *Daily Express* and the *Daily Telegraph*; and by far the most popular single Sunday newspaper is the *Sunday Express*. Altogether it is the middlebrow newspapers that dominate the reading habits of the scientific assistant class; for a subordinate class relatively few read the daily or Sunday tabloids and a slightly higher proportion than average read the serious newspapers, especially the *Observer* and *Sunday Times*. There are no interesting differences in readership patterns between men and women, except the tendency noted throughout our survey of the Civil Service for the latter to read slightly fewer daily or Sunday newspapers. It is clear from Table 12.25 that the scientific assistant class has a markedly more "serious" taste in newspapers than the adult

Table 12.26: *Scientific assistant class: Readership of weekly periodicals*

Periodical	Men	Women	All
	%	%	%
None	82	83	82
Economist	3	—	2
New Statesman	3	3	3
Spectator	1	1	1
New Society	1	2	1
Statist	—	—	—
Listener	8	6	} 14
Times Educational Supplement	4	3	
Times Literary Supplement	3	8	
(N) ¹	(184)	(168)	(352)

¹ Totals add up to over 100 because some staff read more than one periodical.

population at large. For example, over a quarter regularly read the *Daily Telegraph* and *Sunday Times* as against 8%—9% of the national adult population in 1963/64. However, the class's newspaper reading habits do not differ significantly from a national sample whose education was completed at the age of sixteen to eighteen (i.e. non-graduate).

For the ten classes surveyed we have found that readership of the listed current affairs and "cultural" weekly journals is related to (i) membership of desk classes and (ii) membership of higher classes, and it is therefore not surprising that of the ten classes it is the subordinate and non-desk scientific assistant class which reads these journals least. For the minority of 18% who read one of the journals the *Listener* is the most popular, and the three "cultural" journals are more popular than the five dealing with current political and economic affairs. Again, there is no sex difference in the reading patterns.

Differences of age, qualifications, school background or social class origins within the scientific assistant class do not result in marked differences in the newspaper or journal (if any) read. Once again it appears that it is the *present* circumstances of the staff (their present class, the nature and intellectual demands of their job etc.) that determine choice of regular newspaper and journal. There is however a strong link between readership of a journal and readership of a serious daily or Sunday newspaper. For example, 61% of the minority who read a journal also read at least one of the *Daily Telegraph*, *Times* or *Guardian* as against 38% of the whole class; and 65% read at least the *Sunday Times* or *Observer* compared with 44% of the whole class.

Chapter XIII

Summary and Conclusions

It was not part of our task to draw prescriptive inferences from our survey of the main classes in the Home Civil Service. Our study is, in any case, highly restricted in its content and was not designed to yield more than a small part of the evidence which had to be collected before the Committee could arrive at informed conclusions. Nevertheless, in this final chapter it is appropriate to summarise the main findings of the survey which seem most relevant to the problems faced by the Committee.

We particularly wish to draw the Committee's attention to our findings on civil servants which show:—

- (a) the social origins and the educational background and qualifications of members of the different classes;
- (b) the pattern of educational and other factors which can be correlated with promotion both within a class and between classes;
- (c) the extent to which civil servants have experience of, and contact with, other occupations or groups outside the Service;
- (d) the position of women in the Service.

SOCIAL ORIGINS AND EDUCATIONAL BACKGROUND AND QUALIFICATIONS

On the basis of authority, responsibility and salary ranges the different Civil Service classes surveyed in this report can be grouped into three categories—higher, intermediate and subordinate. The higher classes are the administrative, legal and scientific officer classes and the works group of professional classes. The intermediate classes consist of the executive and experimental officer classes. The subordinate classes are the technical works, the draughtsman, clerical and scientific assistant classes.

This threefold categorisation also roughly corresponds to the educational and social class divisions between the groups. This is because recruitment by competition results in a person's class in the Service being determined primarily by his educational qualifications. Thus the pattern of classes in the Service reflects the pattern of the country's educational system. It tends to follow from this that the pattern of classes in the Service also to some extent matches the pattern of social classes in the community at large; which is a reflection of the fact that educational opportunity and achievement are both much influenced by an individual's social class origin. Accordingly, therefore, members of the higher classes in the Service mostly have, as we have shown, "superior" social and educational backgrounds and better educational qualifications than members of the intermediate classes; and members of the intermediate classes are similarly mostly "superior" to members of the subordinate classes. This is much as expected.

However, our survey has also shown that between the four higher Civil Service classes there are significant differences in terms of the education and social origins of their members. There are similar differences between the members of the two intermediate classes; and also between the members of the four subordinate classes. We summarise and try to explain these differences in the next three sections of this chapter.

The higher classes

The administrative class has a dominant role in the work of the Service. Members of the other higher classes—the legal class, the scientific officer class and the professional works group—have comparable qualifications and important responsibilities. But it is members of the administrative class who control and co-ordinate the work of departments. They formulate policy and give direct advice to Ministers. They occupy virtually all the top posts in the Service. The administrative class, therefore, is the focal point of this section of our summary, where we concentrate on the social and educational backgrounds of the members of these higher classes.

The reader, understandably, may question the relevance of our reference to the social and especially the class origins of civil servants. It may be thought, and it is sometimes asserted, that this is an obsessional professional preoccupation of sociologists rather than an enlightenment of the problems of recruitment to the central administration. But this is not so, for two main reasons. The first, and one which is commonly misunderstood, is that social origin is the most useful summary index of the complex of social forces which impinge on the upbringing of an individual and which determine, through a chain of opportunities and acquired aspirations, the actual rather than the potential field of applicants from which the Civil Service must select its recruits. Most of this process of social selection is beyond the control of the Civil Service Commissioners: they can do nothing directly about the basis of the educational system in the primary and secondary schools from which the university students in which they are interested flow. Nevertheless, in order to maintain a complete grasp of their own functions it is essential for them to know the social and educational limits within which they work.

The second reason is that the same process of social selection which brings individuals to diverse occupational destinations also fashions and maintains norms of outlook and shared assumptions among the members of a profession. The character of these tacit values and assumptions is surely of crucial importance in a profession such as the administrative class, which plays a vital role in the public management of the lives of all classes of society.

The administrative class is not the most socially and educationally "superior" of the higher Civil Service classes. That position is occupied by the legal class—from all points of view except class of degree. But, the legal class apart, the administrative class is more socially and educationally exclusive than any other Civil Service class.

As we have seen, the administrative class is much more middle and upper class in origin than the scientific officer class or the professional works group. It is less so than the legal class—though the difference here is almost totally eliminated if only direct entrants to the two classes are considered. Thus 67% of the administrative class and 79% of its direct entrants were born into the middle

and upper classes (i.e. social classes I and II in the Registrar General's classification) compared with 54% of the scientific officer class and 55% of its direct entrants; 60% of the professional works group and 65% of its direct entrants; and 81% of the legal class (nearly all of whom are direct entrants). Similarly, the administrative class, as far as its direct recruits are concerned, is much less working class in origin than the scientific officer class or the professional works group. Only 11% of the direct recruits to the administrative class have come from families of skilled or unskilled manual workers compared with 32% of the direct entrants to the scientific officer class. In this comparison, the legal class matches the administrative class with 11% of its members from the working classes; the professional works group, perhaps surprisingly, comes between the administrative and scientific officer class, children of working class families making up 23% of its direct entrants.

The comparative educational pattern between these four higher Civil Service classes reflects the contrasts in their social origins. The administrative class is more exclusively educated than either the scientific officer class or the professional works group, although less so than the legal class. Fifty-six per cent of the administrative class were educated in the private sector (i.e. direct grant, public and other fee paying schools) compared with 36% of both the professional works group and the scientific officer class, but as many as 67% of the legal class.

As far as university education is concerned the contrast between the administrative and legal classes on the one hand and the scientific officer and the professional works group on the other is most striking. While two-thirds of the graduates in the administrative class come from Oxford or Cambridge, only 17% of the scientific officer class graduates and 13% of the graduates in the professional works group are from these two universities. The great majority of the graduates in the scientific officer class (69%) and the professional works group (65%) come from London, the English provincial, the Welsh and the Scottish universities—compared with only 26% in the administrative class.

From our social and educational comparison of the administrative class with their counterparts in British industry, the professions and other civil services, four main points emerge.

First, the proportion of the administrative class whose fathers were in high administrative, executive and professional occupations is the same as that among the general population of similar age and in jobs of similar social standing. Managers in industry have a similar social background.

Secondly, however, a comparison with university teaching staff indicates that the administrative class is recruiting disproportionately from middle class graduates. Seventy-nine per cent of direct entrants to the administrative class were born into social classes I and II compared with 60% of all university teachers, and as against 59% of students graduating in 1961/62. This comparison with university teachers is particularly worth emphasising since both the administrative class and the universities seek to attract those with high academic qualifications. Both, therefore, recruit from the same university undergraduate population. Yet while university teachers (both in arts and social science faculties and also as a whole) fairly precisely reflect the social and educational composition of the undergraduate body from which they are drawn, the administrative class is much more predominantly middle class. In this connection it is worth pointing out that there is *not* a similar contrast between university

teachers in science faculties and graduates directly recruited into the scientific officer class. In the scientific officer class the members very closely resemble in terms of social composition both the university teachers in science and also the undergraduate body from which they are drawn. Moreover, it may be added in this general contrast that there are only negligible differences in the social backgrounds of arts and science students in our universities.

Thirdly, a crude comparison between the administrative class and its counterparts in the French and United States civil services suggests that the British concentration of recruitment from the middle classes is not exceptional.

Fourthly, from the educational point of view, the "exclusive" school background of members of the administrative class (compared with the scientific officer class and the professional works group) is further underlined in comparison with British industry and the professions. Greater proportions of graduates in local education authorities, the management of a large industrial organisation and university teaching have been educated at L.E.A. maintained schools than their administrative class counterparts. There is a similar contrast as far as university education is concerned. Large industrial concerns and university arts and social science departments recruits a significantly larger proportion of graduates from London, the Welsh, Scottish and English provincial universities than does the administrative class.

The type of subject studied at university by graduate recruits to the administrative class is remarkable when compared with foreign experience and with the British business and professions referred to above. We have seen that the great majority of graduates in the administrative class took their degrees in the arts or humanities (71 %), mainly in history or classics; just over a quarter come from the social sciences; about one in ten studied a natural science and only a negligible proportion graduated in applied science. This is in sharp contrast to the United States and France. In the United States, only a small proportion are arts graduates—the rest coming from the social sciences and natural and applied science. In France, the counterparts of the administrative class are graduates of the *Ecole Nationale d'Administration* where they have had a general education in the social sciences (economics, law, and public administration, finance, statistics, etc.) preceded by a two-year period in one of the *Ecoles Politiques*. Again comparison with British industry and local government suggests that the top men in industry and important officials in local government, with whom members of the administrative class will probably deal, are more likely, if graduates, to have had some kind of social-scientific education.

There is no doubt that promotion widens the social and educational base of the administrative and scientific officer classes and the professional works group. Its impact is most marked on the administrative class. This is partly because, as we have shown, the direct entrants to that class are much more socially and educationally exclusive than their counterparts in the scientific officer class and the professional works group. Between 34 % and 46 % of the promotees to all three classes are of working class origin (compared with 11 % of the direct entrants to the administrative class, 32 % of scientific officer class direct entrants and 23 % of the works group direct entrants). Similarly, a large proportion of the promotees were educated at state schools. In the administrative class over twice as large a proportion of promotees (63 %) as of direct entrants (30 %) were schooled in the public sector: and of the promotees with degrees a larger proportion come from universities other than Oxford and Cambridge. In the

scientific officer class and the professional works group nearly three-quarters of the promotees were educated in the state sector compared with a little over half the direct entrants.

Nevertheless, it is still the case that the administrative class obtains proportionately more middle class promotees (50% of them are from those with fathers in social classes I and II in the Registrar General's classification) than the scientific officer class (44%) and the professional works group (43%). The pattern of promotion into all these classes, however, favours the children of the middle classes—to a far greater extent than in industry where promotion seems to be much more an upward channel of social mobility than in central government (see Table 3.20).

There is a similar pattern in the educational background of promotees. A higher proportion of promotees to the administrative class (36%) attended direct grant and other fee paying schools than among promotees to the scientific officer class (27%) and to professional works group (27%). In industry, in contrast, it seems to be easier for those educated at L.E.A. non-selective schools to be promoted.

There is a further generalisation to be made about the impact of promotion on the social and education composition of the administrative and scientific officer classes and the professional works group. Those promoted into one or other of the higher classes are those in the intermediate classes of the Service whose social and educational background most resembles that of the class into which they are being promoted. They tend to come disproportionately from middle class backgrounds and have a relatively high standard of education compared with the rest of the civil service class from which they are promoted.

In view of the Committee's special concern with recruitment to the Service the social and educational trends among direct entrants to all four of the higher classes covered in our survey merits particularly close attention. Here it is important to stress the contrast between the administrative class on the one hand and on the other the scientific officer class and the professional works group.

The main trend in the recruitment of direct entrants to the administrative class since the war has in fact been contrary to what has sometimes been assumed; it has *not* been towards recruiting from a steadily widening social background. Overall, it has been static. For a number of years, indeed, in the 1950's and early 1960's the trend was towards an increase in the proportion of direct entrants from the middle classes (i.e. social classes I and II).

Thus our sample shows that 85% of those directly recruited between 1961 and 1965 were middle class in background—the highest figure for any five-year period of recruitment of surviving direct entrants (compared with 80% for the period 1956–60, 64% for 1951–55 and 79% for 1946–50).

The figures provided by the Civil Service Commission for all those recruited by Method I and Method II since 1948 show a similar pattern. For the period 1948–56 77% of direct entrants came from social classes I and II; the figure rose to 83% for 1957–63 and remained there until 1966–67 when it dropped back to 76%.

This general pattern since the war in the proportion of direct entrants to the administrative class is particularly significant in the light of the very different pattern among staff directly recruited to the scientific officer class, the professional works group and university teachers. Here there has been a steady

and definite increase in the proportion from social classes III to V (the lower middle and working classes).

Just as from the point of view of social class the trend in direct recruitment to the administrative class since the war has been other than might have been expected, so, too, the trend from the educational point of view has been similarly surprising. Considering the gradual rise in the number of children from L.E.A. grammar schools going to universities, it is remarkable that there has been no significant increase until 1966 in the proportion of recruits educated in the public sector among direct entrants to the administrative class. The proportion from L.E.A. grammar schools entering between 1961-66 (29%) was the same as for the surviving members established before the war (28%) and considerably less than among war-time direct entrants (46%). In fact in the period 1961-66 the proportion of direct entrants from public and other fee paying schools actually increased compared with the period 1951-60 (i.e. from 46% to 50%—see Table 3.35); and if we add those from the direct grant schools we find that the administrative class has throughout the 1950's and the first half of the 1960's been receiving a relatively high and stable proportion of direct entrants with a "privileged" education. However, more recently and particularly in 1966-67 there has been a significant increase in the proportion of direct entrants recruited from the state sector; (44% in 1966-67 compared with 28% in 1961-65).

From the university point of view, too, the trend in recruitment has not matched the post-war pattern of total university output. There was a slight fall in the proportion of Oxford and Cambridge graduates directly recruited to the class between the 1950's and the period 1961-66, but the figure for the latter period (73%) is nearly the same as the immediate post-war period and considerably higher than during the war. By contrast, the proportion of all students graduating from Oxford and Cambridge has declined from 22% in 1938/39 to 14% in 1963/64. However, in 1966-67 Oxford and Cambridge direct entrants went down to 66% compared with 85% for the period 1957-63.

Moreover, the trend in the type of subject studied by graduate recruits has also been surprising. Between 1940 and 1960 the proportionate recruitment of arts graduates was increasing and of natural and applied science students decreasing; in the 1950's the proportion of the social science students also decreased. Though both these tendencies were reversed in the 1960's, the fact remains that whereas the proportion of all undergraduates taking a natural or applied science degree at British universities has increased considerably from just before the war to 1963/64 (26% to 41%) there has been no change in the relative number of natural and applied science graduates taken into the administrative class in the same period (13% to 12%).

These trends in the school and university background of direct recruits to the administrative class are in marked contrast to the post-war trends in the recruitment of university staff, graduates in local government and graduates in business. They are all the more remarkable when set against the corresponding pattern in the service for direct recruitment to the scientific officer and professional works group classes. For the latter classes the trends have been away from public and direct grant schools and from Oxford and Cambridge towards the state schools and the Scottish, Welsh and English provincial universities. Thus, for example, of graduates recruited directly to the scientific

officer class before the war 31% came from Oxford and Cambridge compared with 9% during the 1950's.

In the light of this contrast between the social and educational trend in direct recruitment to the administrative class on the one hand and, on the other, to comparable civil service classes and outside occupations, it is important to survey the contributions made to this administrative class pattern by the various methods of direct recruitment and in particular by Methods I and II. Nine points are worth special emphasis.

- (i) Between 1948 and the mid-1960's candidates for both Method I and Method II were increasingly drawn from the higher social classes and from the direct grant, public and other fee paying schools.
- (ii) The pattern of successes in both Methods I and II has *broadly* reflected the shifts in the social and educational pattern of applicants. Shifts in the school and social background of candidates have been reflected in similar shifts in successes. Nevertheless, in both methods candidates from the middle classes have a clear and consistently higher proportion of successes to candidates compared with those from the working classes. In both methods, too, direct grant and fee paying and boarding schools account for a higher proportion of successful than of all candidates.
- (iii) The fact that middle class candidates have the better chance of success is illustrated from a rather different angle in the Table 3.24. For example, in Method II between 1948-56 among middle class candidates there was a 1:12.0 success ratio while from the very much smaller numbers of candidates from social classes III to V there was a success ratio of 1:19.6. Until very recently the gap between these success ratios has tended to narrow over the years. Thus it was 1:8.0 for middle class candidates between 1956-63 compared with 1:14.7 for the working classes. For the short period 1964-65 the working classes actually had a better success ratio than the middle classes via Method II, 1:4.5 compared with 1:5.5. In 1966-67, however, this was reversed and the gap widened again; thus for the middle classes the success ratio was 1:5.2 compared with 1:8.2 for the working classes. The corresponding figures for candidates and success via Method I also show that middle class candidates have better chances of success than their working class competitors. But here, instead of the gap in the success ratio between the classes narrowing, it has in fact widened. Thus in Method I between 1948 and 1956 the ratio of successes among middle class candidates was 1:5.1 and the corresponding figure for candidates from social classes III to V was 1:6.2. For the period 1956-63, however, the gap widened with a middle class success ratio of 1:5.3 compared with a working class success ratio of 1:7.0. This trend was continued in the 1964-65 figures when the middle class ratio was 1:4.2 while the working class figure had become 1:10.6. But in 1966-67, the gap narrowed; the middle class figures were 1:14.6 while the working class ratio was 1:15.4.
- (iv) The fact that candidates from direct grant, fee paying and boarding schools had a better chance of success than those from L.E.A. grammar schools during the whole period 1948-67 is illustrated in Table 3.38.

Thus, for example, in Method II between 1948 and 1956 candidates from direct grant, fee paying etc. schools had a success ratio of 1:9.9 compared with 1:20.9 for those from L.E.A. grammar schools. For 1957-63 public school etc. candidates had a success ratio of 1:8.3 compared with 1:11.0 for L.E.A. grammar school pupils. For 1964-67 the public school etc. figure was 1:5.0 compared with 1:6.0 for those from L.E.A. grammar schools. For 1966-67 the figures were 1:4.9 for the public schools etc. and for L.E.A. maintained schools 1:6.7.

The corresponding figures for Method I also show that public school etc. candidates have better chances of success than their L.E.A. grammar school competitors. Thus in Method I between 1948 and 1956 the ratio of success among public school etc. candidates was 1:3.9 compared with 1:6.2 for those from L.E.A. grammar schools. For 1957-63 the public schools etc. had a success ratio of 1:5.1 compared with 1:6.3 for the L.E.A. grammar schools. For 1964-65 the public schools etc. had a success ratio of 1:3.6 compared with 1:12.2 for grammar schools. For 1966-67 the public schools etc. success ratio was 1:12.9 and the grammar schools 1:17.2.

- (v) The success ratios given at (iii) above make it clear that for the period 1948-67 working class candidates competing with their middle class contemporaries have had a significantly better chance of success in Method I than Method II (except for 1964-65). Throughout the whole period however (but again with the exception of 1964-65) those from the middle classes have had a better chance of success than those from the working classes in both methods of entry.
- (vi) The success ratios given at (iv) above make it clear that over the period 1948-63 those from L.E.A. grammar schools competing with candidates from direct grant, public and fee paying schools had a slightly better chance of success in Method I than Method II. For the period 1964-67, however, those from L.E.A. grammar schools had a better chance of success in Method II. Nevertheless, for the period 1948-67 as a whole, those from public and direct grant schools have had a better chance of success than those from L.E.A. grammar schools in both methods of entry.
- (vii) The two different methods of entry have produced a different pattern of successful candidates from the point of view of social origins. Thus, throughout the whole period 1948-67 the candidates successful in Method II have contained a larger proportion from the higher professional and managerial classes than those successful in Method I (Table 3.23).
- (viii) The two different methods of entry have also tended to produce a different pattern of successful candidates from the point of view of educational background. Up to 1963 relatively more of the Method II than Method I entrants were educated at fee paying, direct grant and boarding schools; and correspondingly, successful candidates from day schools and L.E.A. maintained grammar schools came consistently more from Method I than Method II (i.e. formed a larger proportion of the Method I than Method II entry).
- (ix) The above points indicate that the post-war social and educational trends in direct recruitment to the administrative class have begun

to change since 1964-65. This is true both of the pattern of applicants and of successes. The change in the pattern of applicants began to show itself in 1966-67. Up to 1965, candidates in both Methods I and II came *increasingly* from social classes I and II. In 1966-67 however, this trend was reversed; 66% of the candidates by Method I and 67% by Method II came from social classes I and II compared with 77% and 81% respectively in 1964-65. There was an even more marked change in the trend of the educational background of candidates. In 1966-67, 46% of the candidates in Method I and 45% of the candidates in Method II came from direct grant, public and other fee paying schools while the corresponding figures for 1964-65 were 63% and 65%.

Curiously enough, the change in the trend of successes began to show itself two years before the change in the pattern of applicants (i.e. in 1964-65 compared with 1966-67 for the applicants). Thus, as far as Method II is concerned (which is now the most important method of entry) the post-war pattern of an increasing proportion of the successful candidates being drawn from social classes I and II, and from the public and direct grant schools, was reversed in 1964-65 when 79% of the successful candidates came from social classes I and II (compared with 87% for 1957-63) and 69% from direct grant, public etc. schools (compared with 73% for 1957-63). And this new trend was continued in 1966-67 when the figures were 77% from social classes I and II and 55% from the direct grant, public etc. schools; in these latter two years (i.e. 1966-67), however, as we noted in the preceding paragraph, there was also a change in the pattern of applicants.

There have been similar changes in the university origin of recruits through both Methods I and II since 1964. The details are as follows:-

Proportions from Oxford or Cambridge University

	<i>Method I</i>		<i>Method II*</i>	
	<i>Candidates</i>	<i>Successful</i>	<i>Candidates</i>	<i>Successful</i>
	%	%	%	%
1957-63	56	80	67	88
1964-65	46	81	56	76
1966-67	51	78	45	64

* Much the larger, of course, in recent years

From these nine points it is clear that it is the social and educational pattern of the applicants that has been the main determinant of the post-war trends in direct entry to the administrative class (though, as we have noted, the change in the trend of successes through Method II preceded by two years the change in the pattern of applicants). Both Method I and Method II, however, have persistently and significantly exaggerated these trends; and working class candidates have generally had better chances of success in Method I (which has been declining in importance) than in Method II. It is in this general context that the evidence of a decline in the intellectual quality (as measured by class of degree) of direct recruits to the administrative class (though not of applicants) may have significance. But first we must put this in the setting of the intellectual quality of the members of the other higher classes.

Judged by class of degree, members of the administrative and scientific officer class are much better qualified than members of any of the other higher classes—with the scientific officer class having perhaps a slight edge. Thus 39% of the graduates in the scientific officer class and 33% of the graduates in the administrative class took firsts. This compares with only 11% in the legal class and 12% in the works group. Nearly 50% of the administrative class have upper or undivided seconds compared with 40% of the scientific officer class, 29% of the works group and 32% of the legal class. Only 19% of the administrative class have a lower second or below compared with 21% of the scientific officer class, 58% of the works group and 56% of the legal class.

Although over half the graduates in the administrative and scientific officer classes hold first or upper second class degrees there appears to have been in both classes a substantial post-war decline in the quality of their direct recruits (judged by class of degree). The evidence for this comes from three related factors—first, the proportion of recruits with firsts; second, the proportion with firsts and top seconds, and third, the proportion with all other classes of degree, especially lower seconds and below. There has certainly been a decline in the proportion of direct entrants with firsts recruited both to the administrative and scientific officer classes. Our sample suggests that the decline has been more marked in the former than the latter. Thus the proportion of firsts directly recruited to the administrative class in the period 1961–66 was about a fifth of that before the war (13% compared with 63%), and a substantial drop from the 1950's when the proportion was 31%. In the scientific officer class the decline appears to have been smaller. The proportion with firsts directly recruited to the class in the 1960's is about two-thirds of that before the war (37% compared with 59%); and the figure of 37% in the 1960's represents virtually no change from the 1950's when it was 36%.

Complete figures (as opposed to our sample) supplied by the Civil Service Commission confirm that there has been a decline in the proportion of those with firsts recruited to the administrative class between 1948–67. Thus between 1948–56 the proportion of those with firsts directly recruited through Methods I and II was 39%; it fell to 30% for the period 1957–63, to 24% for 1964–65; but it rose to 26% for 1966–67. In this connection it is important to stress that there was no corresponding drop in the proportion of *candidates* with firsts; between 1948–56, 13% of the candidates had firsts compared with between 10–12% for the rest of the period.

If we consider that firsts and upper seconds are together an index of the quality of the most able people recruited to the administrative and scientific officer class (though this is arguable), then we have some apparently conflicting evidence.

First, our samples suggest that in considering those with firsts and upper seconds together, the administrative class shows a much greater decline in quality than the scientific officer class. Thus before the war, 78% of the direct entrants to the administrative class had firsts and upper seconds compared with 58% between 1946 and 1950, 62% between 1951 and 1960 and 44% between 1961 and 1965. In the scientific officer class the corresponding figures are 64% before 1940, 62% for 1946–50, 55% between 1951 and 1960 and again 55% between 1961–65. Thus for the administrative class the figure since 1961 represents a decline of nearly half from before the war compared with one of less than 15% for the scientific officer class.

However, figures supplied by the Civil Service Commission for all direct entrants to the administrative class for the period 1948-67 give a rather different picture. Between 1948 and 1956 the proportion of those with firsts or upper seconds declared successful through Method I or II was 58%; for 1957-63, it was 57%, dropping to 53% for 1964-65 and going up to 60% for 1966-67.

As far as those with lower seconds or below are concerned there is no doubt that there has been an increase in their proportionate recruitment to both the administrative and scientific officer class and in this sense, therefore, there has been a decline in the overall quality of those recruited to both classes.

Thus our sample figures show that in the period 1961-66 one-fifth (21%) of those who were directly recruited to the administrative class had lower seconds or below compared with 4% before the war and in the 1950's. In the scientific officer class, while before the war 10% of the graduates directly recruited had lower seconds or below, this rose to 28% in the period 1961-66.

Complete figures supplied by the Civil Service Commission confirm that for the administrative classes between 1948-67 there has been a marked increase in the proportion of recruits with lower seconds or below. For the period 1948-56 between 6% of the direct entry recruits through Method I and Method II had lower seconds or below; for 1957-63 the figure went up to 8%; and for the period 1964-67 it was 12%.

Thus in so far as class of degree is an indication of quality, there has certainly been a decline in the quality of the intake into both the administrative and scientific officer classes. For the administrative class there can be no doubt about the decline in the proportion of the direct entrants with first class degrees—even though the proportion of applicants with firsts has been virtually unchanged. If firsts and upper seconds are counted together then an increase in the proportion of upper seconds could have just about compensated for the decline in the proportion of firsts. But there has also been an increased proportion with lower seconds or below. And these trends have to be viewed against the fact that since 1948 there has been almost no change in the overall quality of those seeking entry into the administrative class.

A further point is worth making on the quality of those recruited to the administrative class. Between 1964-67 half of the applicants who had, or were to get firsts, were considered unsuitable by the Civil Service Commission and were therefore rejected either through Method I or II. During the same period just over 12.5% of those accepted had (or were to get) lower seconds or thirds (though some of the thirds were then subsequently not recruited to the Service when their degree results were known). It would be interesting to know what it was about the personal qualities and style of this 12.5% which commended them more to the Commissioners than the rejected firsts. A comparison of these two groups in terms of their social class and school background might be particularly illuminating in the light of our findings that since the war the administrative class has tended to become more socially exclusive and that the proportion of recruits from L.E.A. maintained schools has not increased.¹

¹ There has been time during the printing of our survey for the Civil Service Commission to begin an investigation of these two groups along the lines we have suggested. It is throwing some light on the personal qualities etc. of the 12.5% with lower seconds or thirds which led them to be preferred by the Commissioners, to those with firsts. These qualities appear to be strongly associated with attendance at public and other fee paying schools and at Oxford and

In this context it may be remarked that in the shift since the war from Method I to Method II as the main method of direct recruitment to the administrative class, the Civil Service Commissioners have specifically set out to seek recruits with other qualities besides the purely intellectual. They have considered that Method I tended to be based on a relatively narrow definition of ability linked primarily to intellectual capacity. Method II is designed to enable other relevant qualities to be given greater weight in the selection process.¹

There is a final point we should like to make about the recruitment procedures for the administrative class. It arises from the contrasts we have brought out between the post-war trend with regard to social class and type of school of direct recruits to the administrative class and the scientific officer class. In the administrative class the pattern of recruitment in these respects via Methods I and II broadly reflects the pattern of applicants (though applicants from the middle classes or public schools have a slightly but persistently higher proportion of successes than others). In this general context it is important to know whether Method I or Method II as selection processes are themselves a deterrent to the type of applicant the Service ought to encourage. This is beyond the scope of our survey, but no doubt an enquiry could be mounted into this question. Such an enquiry might test the hypothesis that the different selection processes followed for appointment to the scientific officer class encourages a wider range of candidates to offer themselves for appointment to that class, while, in contrast, the prospect of Method I or II deters a similar wide range of candidates from seeking appointment to the administrative class.

This survey of the social and educational trends in the higher Civil Service classes raises three questions for the administrative class. What, if anything, needs to be done about the fall in quality as judged by class of degree, the predominance of arts graduates among recruits and the continuing near monopoly of Oxford and Cambridge? These three questions are both difficult and inter-related. First, it is not to be expected that, when the demand for highly educated people is expanding rapidly in both public and private sectors of the economy, the administrative class should or could retain its high proportionate share. Nevertheless, it is an intricate matter of judgement as to what the share should be in order to serve the national interest. Meanwhile the rather precipitate fall in degree quality in the post-war period must be a matter for concern. Part of the answer presumably lies in the expansion of science and the attraction into university science courses of increasing numbers of talented young men and women. This raises the question of whether the traditional definition of the ideal recruit into the administrative class, i.e. the Oxford graduate in classics or history, is appropriate for a modern Civil Service. Here, perhaps, it is not so

continued from previous page

Cambridge. Thus, of those with firsts rejected by the Civil Service Commissioners, 42% came from the public and other fee paying schools and 58% from L.E.A. grammar schools; while of those with lower seconds and thirds preferred by the Commissioners, to these rejected firsts, 76% came from the public etc. schools and only 24% from the state grammar schools. As far as university is concerned, of those with firsts rejected by the Civil Service Commissioners, 30% came from Oxford or Cambridge and 70% from other universities; while of those with lower seconds and thirds preferred by the Commissioners to these rejected firsts, 70% came from Oxford or Cambridge and only 30% from other universities.

¹ Our survey has not, it may be noted, compared the subsequent career success of those admitted by each method.

much a rigid definition on the part of the Civil Service Commissioners as a conception among students of their own suitability, their chances of succeeding in the competition and the expansion of other opportunities for graduates which reduces the potential number of applicants. The application rate outside the arts, and more especially outside Oxford and Cambridge, is accordingly low. Moreover, this question raises not only the further question of deciding on the appropriate educational background for entry into the administrative class but also that of the relation between the administrative class and the other graduate classes, especially the scientific officer class.

However, given prevailing definitions, opportunities and self-conceptions the question still remains whether Oxford and Cambridge graduates are in any pejorative sense "over-represented" among those entering the administrative class. In relation to the supply of British graduates, undifferentiated by ability and subject, the answer is a simple affirmative. But when the differences are taken into account there is no such clear answer. There are very few scientists, technologists or, among recruits to the administrative class, women. For good or ill applicants have been largely men who have read the traditional arts subjects. Yet it is precisely among men reading the arts that the relative decline in the arithmetic importance of Oxford and Cambridge has been least marked over the past twenty years; it may even have been reversed at least in respect of the most able students. Thus, in very recent years particularly, Oxford and Cambridge have become more selective and have drawn students from a wider range of schools, increasingly including the maintained grammar schools. At the same time there has been a relatively dwindling interest in classics among school leavers and a concentration in Oxford and Cambridge of those who have reached the requisite standard in Latin and Greek. The number of male honours students in classics in the redbrick and new universities in England is tiny. Classics is admittedly the most extreme case: but for men somewhat similar trends may be observed in history, English and modern languages. Moreover, the restricted number of places for women in Oxford and Cambridge has tended to raise the relative numbers of able women in these subjects in the modern universities. The survey material does not enable us to establish the validity of this interpretation which requires further research. But it seems likely that despite policy intentions in the opposite direction recruits into the administrative class have come increasingly from Oxford and Cambridge and from the middle classes. This is explained by the development of the graduate market on the one hand and the place of Oxford and Cambridge in an expanding system of higher education on the other; a high proportion of the most talented arts men have been drawn to these older universities while growth in science and technology from which the administrative class does not draw its recruits has been relatively great outside Oxford and Cambridge.

More recently, during the 1960's, the social sciences have begun to expand relatively fast both in the ancient and the modern universities.¹ This development could result in a change in the composition of applicants and, if it were reinforced by explicit encouragement on the part of the Civil Service Commissioners, might reverse the trend maintaining Oxford and Cambridge predominance which we have been discussing.

¹ Between 1961/62 and 1966/67 undergraduates in faculties of social studies increased by 181.2% compared with 62.3% for all faculties. See U.G.C., *University Development 1962/67*, Cmnd. 3820, Table 5, p. 19.

We end this section on the social and educational background of the four higher classes in the Service by drawing attention to a number of our findings on each class which we have not so far summarised.

First, the members of the scientific officer class are relatively young—in this respect very much like the administrative class. We have already noted that members of the scientific officer class are exceptionally well-qualified on entry into the service. It also needs to be stressed that a very large proportion of them (as many as half) have gone on to gain further post-graduate qualifications after entry to the Service. It is also worth remarking here, however, that opportunities within the class are unfavourable in comparison with the administrative class in that there is a much smaller proportion of higher grade posts.

As far as the legal class is concerned four further points are worth emphasising. First, there is no evidence here, as with the administrative and scientific officer classes, of declining quality of degrees among the more recent entrants (though, as we have pointed out, the standard of degrees is anyway rather low for a graduate class). Second, the legal class is unusually restricted in its social and educational composition. Third, the average age of its members is relatively high. The fourth point, which deserves further investigation in the absence of systematic study of solicitors' salaries since the mid-1950's, is that it seems that Civil Service lawyers are not as well paid as their professional colleagues of the same age and similar responsibilities who work outside the Service.

An outstanding feature of the works group of professional classes is that its members have the highest average age in the Service. This is largely attributable to the pattern of recruitment into the two bottom grades of men who are already well into their thirties. The average age of promotion from the basic grade to the main grade is 44.9 and from the main to the senior grade 46.2. Secondly, among the higher classes the professional works group has the smallest proportion of graduates. Only one in five has a university education which contrasts oddly with the practice of the French and German civil services where the equivalent of the professional works group is normally made up of men with university degrees and post-graduate training of two or three years. There is a further contrast with French and other European engineers. Practically no engineers in the British Civil Service have any education in arts or social studies as part of their general backgrounds. Moreover, even those who are graduates typically have thirds, fourths or pass degrees. Thus in quality of degree the engineers in the works group resemble the legal class and have much lower standards than the graduate scientific officers and graduates in the administrative class. On the other hand, it should be noted that there is a large proportion in the works group with post-entry qualifications.

Finally, we have pointed to a slight tendency for civil servants to follow in their fathers' footsteps though to an extent which, as may be seen from Table 2.4, falls far short of an hereditary occupational group or caste. The administrative class has the highest proportion (21 %) whose fathers were also in the Civil Service (though not necessarily the same class).

The intermediate classes

The social and educational composition of members of the executive and experimental officer classes is roughly comparable, and differs from that of the higher and subordinate classes in the way that might be expected from their intermediate position of responsibility and authority. In both classes, a typical

(median) member left an L.E.A. grammar school at sixteen or seventeen with formal qualifications of "A" level standard or a little below without going on to university or any other institution of higher education. About one-third are middle class by birth and just under one-half are the children of manual workers (largely skilled manual workers).

However, both intermediate classes recruit from a wide variety of social and educational backgrounds. Compared with the executive class the experimental officer class has a substantial minority with university or professional qualifications and a school leaving age of seventeen or later, (56%, compared with 47% of the executive class's upper and middle grades, and 35% of its lower grades). In contrast the executive class has considerable proportions at the opposite end of the educational scale. For example, 25% in its upper and middle grades and 43% in its lower grades, as against only 11% of the experimental officer class, possess formal qualifications below "O" level standard on joining the Civil Service; and 35% of the men in its lower grades compared with 21% of the men in the lower grades of the experimental officer class attended non-selective secondary schools.

Thus members of the experimental officer class have received a considerably superior standard of education. They typically left school one year later and with higher qualifications than members of equivalent grades and the same sex in the executive class. Indeed, those in the lower grades reached a higher level of education than those in the lower grades of the *professional works group*. Moreover, the educational gap between the experimental officer and executive classes widens when post-entry qualifications are considered. A higher proportion of the experimental officer class (66%) than any other class surveyed gained some educational qualification after joining the Civil Service (the proportions in the executive class are 24% of the upper and middle grades and 17% of the lower grades). The advanced standard of the post-entry qualifications held by the experimental officer class is also worth noting. Nearly two in five were at the university and professional level. Most executive class post-entry qualifications were of an elementary commercial standard.

As Chapters IV and XI make clear, there are two main reasons for the difference in education between the executive and experimental officer classes. The first is that there is relatively more class-to-class promotion among the desk than among the scientific classes. The administrative class has twice the proportion of promotees from the executive and other supporting classes (30%) than the scientific officer class has from the experimental officer and other supporting classes (16%); and similarly the executive class recruits about four times the proportion from the clerical and supporting grades (over 80%) than the experimental officer class does from the scientific assistant class (22%). In a number of ways this has adversely affected the educational standards of the executive class. A high proportion of its better educated members are "creamed off" into the administrative class; at the same time therefore it has had proportionately more vacancies for promotees. A comparison of the two subordinate classes which provide most of the promotees, the clerical and scientific assistant classes, shows that the former is much poorer in level of education. Moreover the *trend* among promotees to the executive class is towards lower education qualifications.

The second main reason for the superior educational standard of the experimental officer class derives from the relatively good qualifications, and

the type and length of schooling, of its women in the lower grades. It is a general pattern in the Civil Service for women to have "higher" social class origins and a superior standard of education than men in the same grades, but nowhere is this as marked as in the experimental officer class, where women in the lower grades are more middle class in background, better qualified, later school leavers and less likely to have attended a non-selective school than men in the *upper* grades. Some possible explanations for this are offered in Chapter XI.

A few further points about the promotees in the two intermediate classes are important. In the experimental officer class they are remarkably young (the average age of promotion is 24) and so well qualified, that their general level of education is as high as that direct of entrants. It is clear that an advanced post-entry qualification ("A" level standard or above) is almost a guarantee of promotion into the experimental officer class. In the executive officer class promotees are considerably older and they reduce the general educational standard of the class. As a result of both the higher proportion of promotees in the executive class and their older age on promotion the experimental officer class is much the younger class. In fact the class as a whole is younger than the lower grades alone of the executive class.

If the factors of age and promotion are held constant the educational differences between the two classes almost disappear. For example, direct recruits to the lower grades of the executive class have an equivalent if not higher standard of education than the lower grades of the experimental officer class. In both classes the trend in direct recruitment is towards the appointment of candidates with "A" levels on entry having left an L.E.A. grammar school at 17 or later, and away from those with poorer qualifications, an earlier school leaving age and attendance at either a non-selective or private school; which suggests that the supply of good grammar school pupils with "A" levels who seek to enter the Service at that stage is not drying up. There is also a slight but clear trend in both classes towards the direct recruitment of more candidates from a working class background.

A few points emerge from comparison of the executive class with their counterparts in British industry. The executive class is somewhat more "exclusive" socially and educationally. Its upper and middle grades are more likely to have attended a private school but less likely to have professional or university qualifications, and its promotees, who are proportionately fewer than their equivalents in British industry, are also of higher social origins. Moreover, British managers are less likely than members of the executive class to have remained all their working lives with the same employer.

The subordinate classes

The social and educational composition of members of the technical works, draughtsman, scientific assistant, and clerical classes are broadly what might be expected from their subordinate responsibilities and authority. The majority in each class have qualifications of a standard no higher than "O" levels (or their past equivalents) on joining the Civil Service, and substantial minorities on entry (47% of the clerical class and one-third of the draughtsman class) were without any formal qualifications.

The average age at which they left school was 15 or 16 and, except for the scientific assistant class, nearly half went to non-selective secondary schools.

In all four classes a majority are working class in origin although only a small proportion are the children of semi-skilled or unskilled manual workers.

Certain differences in the social and educational background of the four classes are worth noting. The clerical class is not only the worst qualified in our survey, but compares particularly badly with its counterparts in the French Civil Service or in British industry; and very few take further qualifications after entry. Members of the draughtsman class are nearly as poorly qualified on entry, but three times as many (44%) as in the clerical class (15%) take further qualifications after entry. In the technical works class the proportion taking post-entry qualifications is nearly half (48%) and the highest proportion of any class in our survey.

However, the most important differences among the subordinate classes occur between the technical works, draughtsman and clerical classes, and the scientific assistant class, which is clearly distinctive in three ways. First, it stands out with "superior" social class origins and a higher level of education. In the latter respect it follows the pattern of superior standards of education found for the other scientific classes at the intermediate and higher levels of authority. One-third of the scientific assistant class were born into the middle classes compared with about a quarter of the other three subordinate classes. Moreover, not only have its members stayed at school longer than members of the other three subordinate classes but longer even than the lower grades of the executive class. Indeed, in terms of school leaving age, type of school attended, formal qualifications and social class origins, the scientific assistant class is much more similar in composition to the lower executive class than to any of the subordinate classes.

The reason, as we pointed out in Chapter XII, is not that the educational requirements for entry are stiffer but that the staff are so much younger. The scientific assistant class is the youngest of all the classes we surveyed whilst the clerical and technical works classes are amongst the oldest.

The clerical, technical works and draughtsman classes may be distinguished in yet a third way from the scientific assistant class. They all have among their members considerably higher proportions of promotees. This is also reflected in the much smaller proportions established to the Civil Service by open competition among present members of the clerical class (22%), the draughtsman class (15%) and the technical works class (10%) than in the scientific assistant class (69%), even though open competition is the normal method of direct recruitment to all four classes.

To summarise the last three paragraphs it appears that the Civil Service Commissioners tend to appoint relatively well-qualified and late school leavers to the scientific assistant class with an eye on promotion into the experimental officer class. By contrast the clerical, technical works and draughtsman classes tend to form the top rung of a career ladder starting among the industrial and sub-clerical grades.

However, in one respect all the subordinate classes bear a distinctive feature. Among the desk, scientific and technical classes it is a subordinate class which has the largest proportion of members who began their Civil Service career in a temporary capacity. Only 7% of both the technical works and scientific assistant classes, 16% of the draughtsman class and 32% of the clerical class have always been permanently established in the Civil Service. Moreover, there is a long gap between temporary appointment and permanent establishment for many members of the draughtsman and technical works class. For example,

in the technical works class 3% were established in the Civil Service before the war, but 36% were pre-war appointees; and in the draughtsman class the equivalent figures are 5% and 31%.

THE PATTERN OF EDUCATIONAL AND OTHER FACTORS IN RELATION TO PROMOTION

Promotion is widespread in the Civil Service, both within and between classes. It is closely associated with formal educational qualifications, including those gained after entry.

Those promoted from one class to another usually have better educational qualifications than the colleagues they have left behind. They also tend to be less well qualified than others in the class to which they have been promoted. Moreover, they tend to predominate in the lower grades of their new class, which is hardly surprising when so many promotees enter their new class in their mid-thirties or later (to some extent because of the operation of age barriers in class-to-class promotions) and at the lowest or next to the lowest grade; thus after promotion they often do not have time to get very far in their new class.

Of the higher classes the administrative class contains the highest proportion of promotees (30%) closely followed by the professional works group (27%); by contrast only 14% of the scientific officer class are promotees.

Of the intermediate classes the executive class contains the highest proportion of promotees—indeed the highest of any class in our survey. No less than four-fifths of the class are promotees—and this proportion is found among the upper and middle grades as well as among the lower grades of the class. By comparison, just over one-fifth of the experimental officer class are promotees and they are heavily concentrated in the lower grades of the class.

Obviously, the clerical officer class is an important avenue of career mobility. It recruits many of its members from the clerical assistant class and tends to send the educationally successful up into the executive and even to the administrative class. Similarly the scientific assistant class is also an avenue of career mobility and in this sense shows an important contrast with the other subordinate classes—the draughtsman and the technical works classes. These latter classes tend to be the summit of the career of an *industrial* civil servant, whereas the scientific assistant class serves as the springboard for the promotion of recruits straight from school into the intermediate and higher classes.

There are two important points of contrast between the desk classes and the scientific classes which our survey has underlined. First, there is much more promotion between the different desk classes than between the different scientific classes. Second, although we have shown that class-to-class promotion is closely associated with educational qualifications, there is a strong suggestion that other factors play a significant part as far as the desk classes are concerned. Thus promotees to the administrative class have a relatively privileged school education (and therefore tend to be from a higher social class) compared with promotees to the scientific officer class. For example, a higher proportion of promotees to the administrative class attended direct grant and other fee paying schools than of the promotees to the scientific officer class. This is particularly significant when it is viewed against the social and educational composition of the two intermediate classes from which these promotees are mostly drawn. Thus the

experimental officer class (which supplies nearly all the promotees to the scientific officer class) contains a *higher* proportion of those with a privileged education and pre-entry qualifications of "A" level standard and above than does the executive class (which yet supplies the educationally more privileged promotees with the poor qualifications and a more middle class background to the administrative class).

In this context a further contrast may be remarked between the desk classes on the one hand and the scientific and technical classes on the other; this refers to post-entry qualifications. Many civil servants improve their formal qualifications during their Civil Service careers, but especially members of the technical and scientific classes. Thus, all the technical classes can boast of more than 40% of members with such qualifications. Perhaps most remarkable is the scientific officer class which, though having the highest proportion of graduates at entry, also has more than a quarter who have taken further degrees since joining and has another quarter with other post-entry qualifications—so that half the class have gained further qualifications during their service. In the experimental officer class two out of three have obtained a post-entry qualification—many of an advanced standard (e.g. 26% of the class have taken a degree or professional qualifications after having already obtained an H.N.C. or "A" level since joining). In the scientific assistant class about two-fifths have post-entry qualifications. In contrast the desk classes have relatively few with such qualifications. Thus only 15% of the clerical class have obtained post-entry qualifications, and for the executive class the figures are 24% for the upper and middle grades and 17% for the lower grades. In the administrative class 28% have post-entry qualifications as have 14% of the legal class. Paradoxically these low figures for the desk classes are associated with much greater class-to-class promotional mobility between them. This calls for further investigation. The contrast between the desk classes and the scientific classes also suggests that particularly at the clerical officer and executive officer level, there is either not enough encouragement or inducement for young men and women to acquire additional skills or qualifications or there are obstacles or discouragements to such acquisition; this again seems to call for further investigation.

The general picture is one of considerable promotional mobility both through the desk classes and through the scientific and technical classes. It would be wrong to conclude from this, however, that the existence of separate classes is no obstacle to promotion. First, we do not know how much more promotion there might be if classes were abolished. Second, such evidence as we have presented strongly suggests that separate classes are in fact an obstacle to mobility (e.g. the operation of age barriers on class-to-class promotion and the heavy concentration of promotees in the lower grades of their new class). The extent of class-to-class promotion does, however, perhaps call in question the rationale of these class divisions.

As in class-to-class promotion, promotion to upper grades within classes is similarly related to educational background and qualifications, with the social correlates that we have noted throughout our survey. Thus, for example, there is evidence for the administrative class that career success differs according to the type of school attended, which to some extent is a reflection of an individual's social class. Members who went to L.E.A. maintained schools have been less successful than their colleagues from direct grant and other fee paying schools. Boarding school pupils also appear to have a slight advantage over members

from day schools. And graduates from Oxford and Cambridge have a slightly better chance of career success than those from other universities. Thus chances of a successful career in the administrative class are somewhat enhanced by "superior" social origins, a privileged school background and a university education preferably at Oxford or Cambridge. Of these variables however the possession of a good degree is the crucial factor in reaching the upper grades of the administrative class—with firsts being the most likely to reach these grades; so that membership of the upper grades depends more on the class of degree than on where it was obtained. The same generalisations are broadly true of the legal class. But there is a point of contrast as far as the scientific officer class is concerned. For members of this class attendance at the universities of Oxford or Cambridge seems to be a more important factor in career success than the quality of the degree.

Promotion to the upper grades in the works group, especially for engineers, is a long and slow process. Nearly three-fifths of the engineers in the upper grades were established in the Civil Service before the war, and, in 1965, those who were promoted into the senior grade (the career grade) had worked in the Civil Service an average of twenty-three years. This compares with an average of fifteen years seniority for promotion to the career grade among direct entrants to the administrative class and fourteen years for all members for similar promotion in the scientific officer class. It should also be noted that the promotion chances of engineers are unusually closely related to their social class origins. Engineers in the upper grades are more likely to have middle class origins than, for example, graduate mechanical engineers outside the Service and yet they include only 62% who have been to a university or to some other institution of higher education.

EXPERIENCE AND CONTACT WITH OTHER OCCUPATIONS OR GROUPS OUTSIDE THE SERVICE

We have seen that since the war the direct entrants to the administrative class have not been drawn from a steadily widening social and educational background, in marked contrast to the trend in the scientific officer class and the professional works group. It is in this context that the occupational experience of these higher classes is of particular interest.

First, almost two-thirds of the administrative class have never worked outside the Service and therefore do not have direct experience of other occupations; and 37% have spent their entire working lives in the class. In contrast 56% of the scientific officer class, 88% of the legal class and 93% of the professional works group have previously worked outside the Service. Secondly, scientists, lawyers and members of the works group, unlike members of the administrative class, tend to be members of professional associations which include non-civil servants. In these two respects, therefore, Civil Service scientists, engineers, architects etc. have more contact with and direct experience of work outside government departments than their colleagues in the administrative class.

There is the same general contrast in patterns of outside experience and contacts between the intermediate and subordinate desk classes on the one hand and the scientific and technical classes on the other. Thus, for example, the majority of the middle and upper grades of the executive class (58%) have not worked outside the Service while 70% of those in the upper grades of the

experimental officer class have done so. In this respect it should be noted that experience of outside employment is commoner amongst those recruited since 1945 to the executive class than among pre-war recruits; and that the majority of those in the lower grades of the executive class (59%) have not done other jobs before joining the service (though this includes 10% whose previous experience was in the armed forces or local uniformed services).

The third contrast between the higher classes is a geographical one. We saw in Chapter II that civil servants tend to be concentrated in the capital, particularly the higher compared with the subordinate classes, and the desk compared with the scientific and technical classes. The administrative and legal classes are almost entirely employed in inner London, with a minority in Edinburgh. There is less of a metropolitan concentration among scientific and technical staff while the executive and clerical classes are more evenly distributed—over a third of the latter working in the North and Scotland. To this must be added the fact that a significantly larger proportion of civil servants than of the general population have grown up, as well as work in, the South. The proportion of those born in London and the South East is highest in the administrative class (41%) compared with 26% of the scientific officer class, 38% of the professional works group, 32% of the legal class, 34% of the executive class and 26% of the clerical class.

Thus, among the higher classes, when the geographical origins of their members, their place of work and their outside occupational experience and professional contacts are considered alongside their educational and social background, the administrative class is much less representative of, and more isolated from, the community at large than the scientific officer class, the works group, or even the legal class.

Two further points are worth making on the question of the geographical origins of civil servants. First, in nearly all classes (but not the administrative class) those civil servants born in the North of England, Wales, Scotland and Northern Ireland have better educational qualifications, a more selective schooling and left school later than their counterparts born in London, the South and Midlands. It appears that, particularly for those classes which rely on local recruitment (i.e. the appointment of those native to the region in which they work), the geographical distribution of job-opportunities is less than optimal from the point of view of labour supply. Second, class-to-class promotees in the administrative and scientific officer classes and the works group come proportionately more from London, the South and Midlands than from other regions. This appears to be a result of the metropolitan concentration of posts in the higher classes, and of dependence on local recruitment on the part of the supporting classes providing most of the promotees.

WOMEN IN THE CIVIL SERVICE

Women are, of course, in a small minority among civil servants. They are most common in the clerical class where they constitute 44% of the permanent members. The next largest group are in the executive class (20%). Women form 8% of the administrative class, 9% of the legal class, and between 3% and 4% of the lower grades in the scientific officer class (the upper grades are almost all men). There are only fifteen women in the professional works group so we excluded them from our survey. Among the draughtsmen, 5% are women

(excluding the cadet/training and routine grades) while there are only 0.2% in the technical works class. Seven per cent of the experimental officer class are women as are 17% of the scientific assistant class.

The Civil Service is a particularly enlightened employer of women making no ostensible discrimination against them in pay or prospects and is generous in its leave arrangements. Even so, all the signs are that they compete on less than equal terms with men. For example, in all classes they are heavily concentrated in the lower grades though they are likely to be better qualified (at any rate in the formal sense) than their male colleagues in the same grade; they are also usually "superior" in social and educational background to the men alongside whom they are working.

Women appear to have the best chances in the administrative and executive classes. In the administrative class where they form 8% of the whole class, 10% of the principals, 6% of the assistant secretaries, and 3% of the under and deputy secretaries are women. In the executive class where they form 20% of the whole class, 23% of the executive officers are women, as are 16% of the higher executive officers, 11% of the senior executive officers, 2% of the senior chief executive officers and 1% of the principal executive officers.

Progress into the higher grades of a class, however, usually involves spinsters. Thus, for example, about three-fifths of the women in the administrative class are single compared with scarcely more than 10% of the men.

It should also be noted that women in the Service tend more than their male colleagues not to have had occupational experience outside the Service.

Whilst there is nothing in our findings to suggest that the Civil Service is anything but a "good employer" of women compared with other employers, it may be that there should be still more flexible arrangements for the employment of married women in intermediate or higher grades, especially when they have completed child-bearing.

CONCLUSION

The Civil Service has evolved from a shape and size designed to meet the needs of Victorian government. It was no part of the survey of current conditions to trace their historical growth. The contemporary picture is one of an enormous work organisation—there are well over three-quarters of a million civil servants in Britain, not counting industrial staff—with a complex division of labour between administrative, clerical, scientific, technical and professional occupations, many of which were unknown a century ago not only to government employment but to the economy at large. Though it is true that the majority are engaged, whether in a senior or subordinate capacity, in some kind of general administrative or "paper" work, it is also no less true that the modern business of central government administration involves the services of almost every known expertise in science, technology, law and the professions.

When our survey findings are added to the Report of the Management Consultancy Group they would seem to raise questions concerning the rationale of this complicated division of labour between the existing grades and classes. From our survey, which covers ten of the main general Service classes subdivided by grade and sex, it has been possible to describe the distribution of civil servants by sex, salary, tenure and by geographical and departmental

distribution. Looking more particularly at our information on internal promotion, the educational, social and regional background of civil servants, the modes of recruitment and the relation between application and success in gaining admittance, there is reasonable ground for questioning the effectiveness of Civil Service recruitment and the structure of classes within the Civil Service. Answers to these questions both in general and in detail are for the Committee in its report.

Annex I

The Sample Survey

The Sample Survey

In this annex we reproduce the questionnaire which was sent out to 5,187 civil servants in January, 1967 and was returned by the end of February. Because the time made available to submit our report was so short we were unable to use as much of the data as we should have liked and as a more leisurely and thorough analysis of the replies would have permitted. It was therefore necessary to omit material relating to those questions which we considered of less direct relevance to the main aims of the report. We therefore have not systematically analysed the following questions about the family background of civil servants:

- | | | |
|----------|-----------|---|
| Question | 3(a) | School leaving age of mother. |
| | 3(b) | University education of mother and father. |
| | 4 | Number of siblings; number of older siblings; university education of siblings. |
| | 16(a) | Year of marriage. |
| | 16(b)&(c) | School and university education of spouse. |
| | 16(d) | Number, age and sex of children. |
| | 17 | School and university education of children. |

In addition, replies to Question 12, relating to further education were of insufficient value to warrant inclusion in the report.

**SURVEY FOR
THE FULTON COMMITTEE
ON THE CIVIL SERVICE**

CONFIDENTIAL

Any information you give us will be treated as **STRICTLY CONFIDENTIAL**. No names or information about individuals will be passed on to anyone. All the information obtained will be combined and presented in the form of statistical tables.

TO THE INFORMANT Please insert the date you actually **received**
this questionnaire here1967

Please insert the date you actually **despatched**
this questionnaire here1967

SOME POINTS TO REMEMBER WHEN YOU FILL IN THIS QUESTIONNAIRE

Although we believe that you will find this questionnaire easy to answer, the following points may be of some assistance to you and we would ask you to bear them in mind when filling it in.

1. Please read carefully each individual question and its instructions to determine exactly what is required before you attempt to answer it.
2. In answering, please use a **PENCIL** only: do **not** use a biro or a pen.
3. Ensure that any figures you have to insert are clear and easy to read.
4. Where you have to put a ring round a number in answer to a question, see that your ring circles the number relating to your answer **ONLY**.
5. Where you are asked to place your answer inside a box, please ensure that the answer is actually **inside** it.
6. If you do not know the answer to a particular question always ring the number indicating "Don't know". **PLEASE DO NOT DELAY RETURNING THE QUESTIONNAIRE** in order to make enquiries about the point in question.
7. Where you **do** know the answer to a particular question but the categories provided do not fit your reply, disregard the codes and write in your reply.
8. Where dates or years of age are asked for, only the year or number of completed years is required. Months and weeks or parts of a year are **not** needed.

QN. 1 PLACE OF BIRTH

If you were born **IN THE UNITED KINGDOM**, write your place of birth in **full**, including town or village **and** county—also postal district number where relevant.

If you were born **OUTSIDE THE UNITED KINGDOM**, ring the appropriate number against the country/area below.

United Kingdom birthplace.....	<input type="checkbox"/>
.....	
.....	
.....	
.....	
Republic of Ireland	13
Any other EUROPEAN country	14
COMMONWEALTH country	15
Any OTHER country	16

PLEASE GO TO QN. 2

QN. 2 YOUR FATHER'S OCCUPATION

Will you please describe your **father's** occupation below as fully as you can, and say in which industry he works (worked)?

IF HE HAS RETIRED, GIVE HIS MAIN OCCUPATION WHEN WORKING.

IF HE IS/WAS IN THE CIVIL SERVICE, LOCAL GOVERNMENT OR ONE OF THE UNIFORMED SERVICES, PLEASE GIVE HIS CLASS, GRADE OR RANK.

IF YOU DO NOT KNOW HIS JOB, RING THE NUMBER AGAINST "NOT KNOWN".

A. Father's occupation/title of father's job

_____	Not known.....O

_____	<input type="checkbox"/>

**B. Industry in which father works (worked)
(IF YOUR FATHER WAS A CIVIL SERVANT WRITE IN "CIVIL SERVICE"
BELOW)**

PLEASE GO TO QN. 3

QN. 3 Here we are asking you to give us some information about the education of your parents. THE INFORMATION ABOUT YOUR FATHER SHOULD BE PUT IN COL. 1 & ABOUT YOUR MOTHER IN COL. 2.

	COL. 1 FATHER	COL. 2 MOTHER
(a) At what age did your father/mother leave his/her last full-time school?		
PLEASE ENTER COMPLETED YEARS OF AGE IN THE BOXES →	<input type="text"/> Yrs	<input type="text"/> Yrs
IF YOU DO NOT KNOW THE AGE(S), RING 0	0	0
(b) Did your father/mother obtain a University degree?		
PLEASE RING THE NUMBERS AGAINST THE APPROPRIATE ANSWERS	1 2 0	1 2 0
IN THE RELEVANT COLUMNS	Yes No Don't Know	

GO TO QN.4

QN. 4 How many brothers and sisters have you alive now?
(INCLUDE ADOPTED & STEP-BROTHERS & SISTERS)

IF NONE, PLEASE PUT 0 IN THE BOX AND GO TO QN.5

IF YOU HAVE BROTHER(S) AND/OR SISTER(S) ALIVE NOW,
PLEASE PUT TOTAL NUMBER IN THE BOX AND GO TO (a)–(c)
BELOW

TO ALL WITH BROTHER(S) &/OR SISTER(S) ALIVE NOW

(a) How many of these are **OLDER** than you?

IF YOU YOURSELF ARE THE ELDEST PUT 0 IN THE BOX OTHERWISE PUT IN THE NUMBER OLDER THAN YOU →

(b) Are any of your brother(s) and/or sister(s) now taking a degree course at a University?
PLEASE RING THE NUMBER Yes, now taking a degree course1

AGAINST THE APPROPRIATE
ANSWER

No, not now taking a degree course2

(c) Do any of your brother(s) and/or sister(s) possess a University degree?

PLEASE RING THE NUMBER AGAINST
THE APPROPRIATE ANSWER

Yes.....1

No.....2

Don't know.....3

NOW GO TO QN. 5

QN. 5 What type of full-time school did you yourself attend last? IF YOUR LAST FULL-TIME SCHOOL WAS OUTSIDE THE UNITED KINGDOM RING 8.
REMEMBER WE WANT YOU TO RING THE LAST FULL-TIME SCHOOL ONLY

	Secondary modern/Elementary/Church/Junior secondary school...1
PLEASE RING	Comprehensive school2
THE NUMBER	Technical school/Central school/Intermediate school/Higher Grade school3
AGAINST THE	State Grammar-type school/County High school/Senior Secondary school4
APPROPRIATE	Direct grant/private Grammar school5
ANSWER	Public school (Headmasters' Conference—fee-paying)6
	Other private fee-paying schools (e.g. Clarks/Gregg's/Pitman's, etc.) 7
	Schools abroad (all types)8
	Other types of schooling, including cases in which the type is not known9

GO TO QN. 6

QN. 6 At what age did you leave that school?

PLEASE ENTER COMPLETED YEARS OF AGE
IN BOX Yrs

Can't remember.....0

GO TO QN. 7

QN. 7 At the time of leaving that school, were you a day pupil or a boarder?

Day pupil.....1

PLEASE RING THE APPROPRIATE NUMBER

Boarder2

GO TO QN. 8

QN. 8 QUALIFICATIONS

In this question we want to know two things:

(1) the qualifications (if any) you had before you entered the Civil Service (Col. 1).

(2) the qualifications (if any) you have obtained since entering the Civil Service (Col. 2).

EXAMINE CAREFULLY THE TYPES OF QUALIFICATION LISTED BELOW AND RING THE NUMBER AGAINST EACH ONE YOU POSSESS IN THE APPROPRIATE COLUMN. FOR EXAMPLE IF YOU HOLD A UNIVERSITY FIRST DEGREE (03) AND A CITY AND GUILDS CERTIFICATE (11), YOU SHOULD RING BOTH.

IF YOU POSSESS A HIGHER DEGREE, DO NOT FORGET TO RING (03) ALSO FOR YOUR FIRST DEGREE.

IF YOU DO NOT POSSESS ANY QUALIFICATIONS AT ALL, RING (00) IN COLS 1 & 2 & GO TO QN. 12

Types of Qualification

	COL. 1 Qualifications held BEFORE entering Civil Service	COL. 2 Qualifications obtained SINCE entering Civil Service
No qualifications	00	00
Master's Degree (M.A.)	01	01
Other higher degree, such as Ph.D., M.Sc., D.Sc., etc.	02	02
University first degree (including full medical, dental or veterinary qualifications).....	03	03
Diploma in Technology (Dip. Tech.)	04	04
Membership of a professional institution (e.g. A.M.I.C.E./A.M.I.E.E./A.M.I.M.E./A.M.I.S.E./ A.R.I.C.S./A.C.A.E.A.I./A.L.A.S. Also regis- tered architects/A.R.I.B.A./barrister/qualified solicitors	05	05
All university diplomas EXCEPT Dip. Tech. (in- cluding teaching diploma/certificate).....	06	06
Higher National Certificate/Higher National Dip- loma.....	07	07
"A" level G.C.E. (RING AA & ENTER NO. OF SUBJECTS IN BOX)	AA <input type="text"/>	AA <input type="text"/>
Higher School Cert./Inter. Arts/Science/Higher Scottish Cert. of Education/Scottish Leaving Certificate (Higher) /Attestation of Fitness (Scotland)	08	08
"O" level G.C.E./General School Cert./Matricu- lation/Scottish Cert. of Education (Ordinary)/ Scottish Leaving Cert. (Lower)	09	09
Ordinary National Certificate/Ordinary National Diploma	10	10
City and Guilds (all levels and all types)	11	11
Nursing qualifications (S.R.N., S.C.M., etc).	12	12
Royal Society of Arts exams/certs. (includes typing/ shorthand proficiency certs.)	13	13
Full industrial apprenticeship (carpenters etc.).....	14	14
All other qualifications—including those not fully completed	15	15

IF YOU HAVE A DEGREE (03, 02 OR 01 RINGED ABOVE) GO TO QN. 9

IF YOU DO NOT HAVE A DEGREE (NONE OF 03, 02 OR 01 RINGED ABOVE) GO TO QN. 12

TO ALL WHO HAVE A DEGREE (03 &/OR 02 &/OR 01 RINGED IN QN. 8 ABOVE)

QN. 9 What MAIN subject(s) did you study for your first degree(s)?

MAIN SUBJECT(S) ONLY ARE REQUIRED

IF YOU HAVE ONE FIRST DEGREE ONLY, RING THE NUMBER(S) IN COL. 1 AGAINST THE MAIN SUBJECT(S) TAKEN.

IF YOU HAVE MORE THAN ONE FIRST DEGREE, COMPLETE COL. 1 AS ABOVE FOR THE DEGREE OBTAINED FIRST AND COL. 2 FOR ANY SUBSEQUENT FIRST DEGREE.

IF THE MAIN SUBJECT(S) OF YOUR FIRST DEGREE(S) ARE NOT LISTED BELOW, RING THE 20 &/OR 47 AS APPROPRIATE AT THE FOOT OF THE COLUMN(S).

THE FACULTY HEADINGS IN THE LIST BELOW ARE INCLUDED ONLY AS A GENERAL GUIDE, THEY DO NOT NECESSARILY FOLLOW THE FACULTY DIVISIONS OF ANY SPECIFIC UNIVERSITY, COLLEGE OR INSTITUTION

LIST OF SUBJECTS

	Col. 1 1st First Degree	Col. 2 2nd First Degree		Col. 1 1st First Degree	Col. 2 2nd First Degree
ARTS			SCIENCES		
Archaeology	01	01	Astronomy	21	21
Classical Greek, Latin	02	02	Biochemistry	22	22
English	03	03	Botany	23	23
Other languages (French, German, Italian, etc.)	04	04	Chemistry	24	24
Fine Arts	05	05	Genetics	25	25
History	06	06	Geology	26	26
Music	07	07	Mathematics	27	27
Philosophy	08	08	Microbiology (inc. Bacteriology)	28	28
Theology	09	09	Physics	29	29
			Statistics	30	30
			Zoology	31	31
			Physiology	32	32
			Pharmacology	33	33
			Pathology	34	34
			Anatomy	35	35
SOCIAL STUDIES			TECHNOLOGIES		
Administration (incl. Social Work)	10	10	Architecture	36	36
Anthropology	11	11	Engineering—Aeronautical	37	37
Commerce (including Accountancy)	12	12	—Chemical	38	38
Economics	13	13	—Civil	39	39
Education	14	14	—Electrical	40	40
Geography	15	15	—Mechanical	41	41
Law	16	16	—Other	42	42
Politics	17	17	Metallurgy	43	43
Psychology	18	18	Mining	44	44
Sociology	19	19	Pharmacy	45	45
			Textiles (incl. Textile Engineering)	46	46
ANY OTHER ARTS &/OR SOCIAL STUDIES	20	20	ANY OTHER SCIENCES &/OR TECHNOLOGIES	47	47
MEDICAL DENTAL &/OR VETERINARY STUDIES—OTHER THAN NOS 32 to 35 ABOVE				48	48
AGRICULTURE				49	49
FORESTRY				50	50
GENERAL STUDIES (ESSAY PAPER & FOUNDATION STUDIES AT UNIVERSITY OF NORTH STAFFS)				51	51

GO ON TO QN. 10

TO ALL WHO HAVE ONE (OR MORE) FIRST DEGREE(S) (CONT'D)**QN. 10** What was the level of your **first degree(s)**?**IF YOU HAVE ONE FIRST DEGREE ONLY, RING THE APPROPRIATE NUMBER IN COL. 1****IF YOU HAVE MORE THAN ONE FIRST DEGREE, COMPLETE COL. 1 AS ABOVE FOR THE DEGREE OBTAINED FIRST AND COL. 2 FOR ANY SUBSEQUENT FIRST DEGREE**

	COL. 1 1st FIRST DEGREE	COL. 2 2nd FIRST DEGREE
1st class honours	1	1
Upper 2nd class honours	2	2
2nd class honours (undivided)	3	3
Lower 2nd class honours	4	4
Any other level, including aegrotat	5	5

GO ON TO QN. 11**QN. 11** We should also like to know

- (a) the type of institution at which you obtained your first degree(s),
 (b) whether this degree was (these degrees were) obtained **mainly** by full-time or **mainly** by part-time study,

AND IF MAINLY BY FULL-TIME STUDY AT UNIVERSITY

- (i) the name of the university at which you obtained your degree(s)

PLEASE RING THE NUMBER AGAINST THE APPROPRIATE ANSWER BELOW

	(b) 1st FIRST DEGREE		(b) 2nd FIRST DEGREE	
	MAINLY FULL TIME	MAINLY PART TIME	MAINLY FULL TIME	MAINLY PART TIME
(a) Type of institution attended				
University	1	2	3	4
College of Advanced Technology (C.A.T.)	5	6	7	8
Regional College of Technology or similar institution	5	6	7	8
Other	5	6	7	8

} → **GO
TO
Q. 13**

IF DEGREE(S) OBTAINED AT A UNIVERSITY MAINLY BY FULL-TIME STUDY (1 OR 3 RINGED IN b) ABOVE

(i) At which university did you obtain your first degree(s)?

PLEASE RING THE NUMBER AGAINST THE NAME OF THE UNIVERSITY
IN THE APPROPRIATE COLUMN BELOW

ENGLISH & WELSH UNIVERSITIES	1st	2nd		1st	2nd
	FIRST DEGREE	FIRST DEGREE		FIRST DEGREE	FIRST DEGREE
Birmingham	01	01	Sheffield	18	18
Bristol	02	02	Southampton	19	19
Cambridge	03	03	Surrey	20	20
Durham	04	04	Sussex	21	21
Essex	05	05	University of Wales	22	22
Exeter	06	06	Warwick	23	23
Hull	07	07	York	24	24
Keele	08	08			
Leeds	09	09	Scottish Universities		
Leicester	10	10	Aberdeen	25	25
Liverpool	11	11	Edinburgh	26	26
London	12	12	Glasgow	27	27
Manchester	13	13	St. Andrews	28	28
Newcastle-upon-Tyne	14	14	Strathclyde	29	29
Nottingham	15	15			
Oxford	16	16	Northern Ireland		
Reading	17	17	Queens, Belfast	30	30
			Any other university in the United Kingdom	31	31
			Any university outside the United Kingdom	32	32

NOW GO TO QN. 13

QN. 12 TO ALL THOSE WHO DO NOT POSSESS A (UNIVERSITY) DEGREE

Since leaving the full-time school you mentioned in Qn. 5 have you received any of the following kinds of further education?

IF YOU HAVE NOT RECEIVED ANY TYPE OF FURTHER EDUCATION, RING 0
BELOW AND GO TO QN. 13

PLEASE RING THE NUMBER(S) AGAINST ALL THE ANSWERS THAT APPLY	Have received no further education.....	GO TO 0 → QN.13
	A full-time course at a University.....	1
	A full-time course at a technical college/C.A.T.....	2
	A teachers training course/course at college of education	3
	A trade course (includes industrial and clerical training courses as e.g. in typing and shorthand, etc.).....	4
	Any other kind of further education.....	5
	PLEASE DESCRIBE BELOW:	
	
	
	
	

NOW GO TO QN. 13

TO ALL

QN. 13 Have you ever had a full-time paid job outside the Civil Service in any of the following fields of employment? EXCLUDE NATIONAL SERVICE OR ANY JOBS DONE DURING SCHOOL HOLIDAYS OR UNIVERSITY VACATIONS.

IF YOU HAVE NOT HAD ANY FULL-TIME PAID WORK OUTSIDE THE CIVIL SERVICE, RING 0 BELOW AND GO TO QN. 14

	Has worked in the Civil Service only.....	GO TO 0→QN.14 BELOW
PLEASE RING THE	Industry (e.g. manufacturing, processing, engineering, building, railways, gas, electricity, etc.).....	1
NUMBERS AGAINST	Commerce (e.g. insurance, finance, retail trade, shop work, etc.)	2
ALL THE DIFFERENT	Communications (e.g. newspapers, publishing, advertising, radio, television, etc.).....	3
FIELDS OF EMPLOY-	Teaching/lecturing	4
MENT YOU HAVE	Social services (e.g. nursing, child care, youth service, probation service, missionary work, etc.).....	5
WORKED IN	Agriculture, forestry, fishing.....	6
	Armed forces, police, fire, civil or other defence services (REGULAR ENGAGEMENTS ONLY) 7	7
	Local government—other than code 7.....	8
	Any other field of work.....	9

NOW PLEASE GO TO QN. 14

QN. 14. Were you employed on a temporary or non-established basis in the Civil Service before you became established? IF AT SOME PERIOD YOU LEFT THE CIVIL SERVICE TO DO FULL-TIME PAID WORK ELSEWHERE, YOUR ANSWER SHOULD REFER TO YOUR LAST PERIOD OF SERVICE ONLY.

PLEASE RING THE	No, no such temporary/non-established service.....	GO TO 1→QN. 15
NUMBER AGAINST		
THE APPROPRIATE	Yes, on temporary/non-established basis at first...2→	GO TO (a) BELOW
ANSWER		

↓
IF ANY SERVICE ON A TEMPORARY/NON-ESTABLISHED BASIS

(a) In what year did you start your temporary/non-established service?

**PLEASE PUT LAST TWO FIGURES OF THE YEAR
IN THE BOX** → 19

NOW GO TO QN. 15

QN. 15 What is your permanent grade? (IGNORE ANY TEMPORARY/ACTING GRADING)

PLEASE RING THE APPROPRIATE NUMBER

IF YOU CANNOT IDENTIFY YOUR GRADE AMONG THOSE LISTED PLEASE RING NUMBER 99 AT THE FOOT OF THE COLUMN AND DESCRIBE YOUR GRADE IN FULL ON THE DOTTED LINE BESIDE IT.

Clerical Class	Higher Clerical Officer.....	02
	Clerical Officer.....	03
Executive Class	Head of Major Executive Establishment.....	11
	Principal Executive Officer.....	12
	Senior Chief Executive Officer.....	13
	Chief Executive Officer.....	14
	Senior Executive Officer.....	15
	Senior Staff Officer.....	16
	Higher Executive/Staff Officer.....	17
	Executive Officer.....	18
Technical Works Engineering and allied Classes	Officer Grade A.....	22
	" " B.....	23
	" " I.....	24
	" " II.....	25
	" " III.....	26
	" " IV.....	27
Draughtsmen	Chief Draughtsman.....	32
	Senior Draughtsman.....	33
	Leading/Higher Grade Draughtsman.....	34
	Draughtsman.....	35
Works group of Professional Classes	Grades above Superintending Grade.....	44
	Superintending Grade.....	45
	Senior Grade.....	46
	Main Grade.....	47
	Basic Grade.....	48
Experimental Officer Class	Chief Experimental Officer.....	52
	Senior Experimental Officer.....	53
	Experimental Officer.....	54
	Assistant Experimental Officer.....	55
Scientific Officer Class	Grades above Chief Scientific Officer.....	62
	Chief Scientific Officer.....	63
	Deputy Chief Scientific Officer.....	64
	Senior Principal Scientific Officer.....	65
	Principal Scientific Officer.....	66
	Senior Scientific Officer.....	67
	Scientific Officer.....	68
Scientific Assistant Class	Senior Scientific Assistant.....	72
	Scientific Assistant.....	73
Administrative Class	Permanent Secretary.....	82
	Deputy Secretary.....	83
	Under Secretary.....	84
	Assistant Secretary.....	85
	Principal.....	86
	Assistant Principal.....	87
Legal Class	Grades above Principal Assistant Solicitor.....	92
	Principal Assistant Solicitor.....	93
	Assistant Solicitor.....	94
	Senior Legal Assistant.....	95
	Legal Assistant.....	96

SOME OTHER GRADE—
PLEASE DESCRIBE IN FULL.....99

GO TO QN. 16

- QN. 16 PLEASE INDICATE YOUR MARITAL STATUS BY RINGING THE APPROPRIATE NUMBER**
- | | |
|------------------------------|-----------------------|
| Single.....1 | → QN. 18 |
| Married.....2 | } GO TO (a)-(d) BELOW |
| Widowed/separated, etc.....3 | |

↓
IF YOU ARE MARRIED OR WIDOWED/SEPARATED, ETC.

- (a) In what year were you first married?
PLEASE PUT LAST TWO FIGURES OF THE YEAR IN THE BOX → **19**

IF YOU DON'T REMEMBER THE YEAR, RING 0 → Don't Know.....0

- (b) Does (did) your wife/husband possess a University degree? Yes 1

No2

PLEASE RING THE NUMBER AGAINST THE APPROPRIATE ANSWER

Don't know.....0

- (c) At what age did your wife (husband) leave her (his) last **full-time** school?

PLEASE ENTER COMPLETED YEARS OF AGE IN THE BOX → Yrs.

IF YOU DO NOT KNOW THE AGE RING 0 → Don't Know.....0

- (d) How many sons and daughters have you now?
(INCLUDE ADOPTED AND STEP-CHILDREN)

→ Sons

FILL IN THE NUMBERS OF EACH IN THE BOXES IF NONE, FILL IN "0" IN THE APPROPRIATE BOX

→ Daughters

IF YOU HAVE NO SONS OR DAUGHTERS AT ALL NOW, GO TO QN. 18

IF YOU HAVE SON(S) &/OR DAUGHTER(S) NOW, GO TO (i) BELOW

- (i) How many of these are

under 5 years of age? →

IF NONE IN ANY PARTICULAR AGE GROUP FILL IN "0" IN THE BOX FOR THAT GROUP

5 to 18 years inclusive? →

19 years old or older? →

NOW PLEASE CHECK THAT THE TOTAL NO. OF CHILDREN IN (d) AGREES WITH THE TOTAL NO. SHOWN IN ((d)i) AND GO TO QN. 17

QN. 17 TO ALL WITH SONS AND/OR DAUGHTERS (IF NO SONS OR DAUGHTERS, GO TO QN. 18)

In this question we are asking you to give us some information about certain types of **FULL-TIME** schools your children may have attended.

IF NONE OF YOUR CHILDREN ARE YET OLD ENOUGH TO GO TO SCHOOL, PLEASE RING THE NUMBER (0) AT THE TOP OF THE COLUMN IN QN. (a) BELOW AND GO TO QN. 18

IF SOME OF YOUR CHILDREN ARE OF SCHOOL AGE OR OLDER PLEASE ANSWER (a), (b), (c) and (d) BELOW.

- (a) Have any of your sons and/or daughters ever been educated **FULL-TIME** at any of the following types of school?

IF YOUR SONS AND/OR DAUGHTERS HAVE NOT BEEN TO SCHOOLS OF THESE TYPES, PLEASE RING 9 AT THE BOTTOM OF THE COLUMN AND GO TO PARTS (b), (c) & (d) OF THE QUESTION.

Type of school

None of my children have been to school yet 0→GO TO QN.18

State grammar or grammar-type school/Senior secondary school1

Direct grant/private grammar school2

Public school (Headmasters' Conference—fee paying)3

Private preparatory school (fee paying—excluding private nursery school or kindergarten)4

Any other private fee paying school in the United Kingdom (as e.g. Clarks/Gregg's/Pitman's, etc.)5

Private fee paying schools abroad—all types6

Sons and/or daughters have not attended any schools of these types 9

DO NOT FORGET TO ANSWER (b), (c) & (d) BELOW

- (b) Are any of your sons or daughters now taking a degree course either at a University or by any other method?

PLEASE RING Yes, now taking a degree course at University1

BOTH IF Yes, now taking a degree course by some other method2

BOTH APPLY No child(ren) now taking a degree course3

- (c) Have any of your sons or daughters ever in the past taken a degree course either at a University or by some other method?

PLEASE RING Yes, has taken a degree course at University1

BOTH IF Yes, has taken a degree course by some other method2

BOTH APPLY No child(ren) have ever taken a degree course3

- (d) Do any of your sons or daughters possess a University degree (or higher qualification)?

Yes.....1

No.....2

NOW GO TO QN. 18

TO ALL

QN. 18A. Do you belong to any clubs, societies, associations or groups such as are described below?

FOR EACH TYPE OF CLUB, ETC. THAT YOU BELONG TO PLEASE RING THE NUMBER AGAINST IT IN COL. A.

IF YOU DO NOT BELONG TO ANY CLUB, SOCIETY, ASSOCIATION OR GROUP, RING THE NUMBER "O" AGAINST "DO NOT BELONG TO ANY" IN COL. A. AND GO TO QN. 19

B. We should also like to know whether you take any part in the running of these clubs, Societies, etc. that you belong to by being a committee member, office holder or something like that?

IF YOU DO, FOR EACH TYPE OF CLUB, ETC. WHICH YOU HELP TO RUN PLEASE RING THE NUMBER AGAINST IT IN COL. B.

	COL. A	COL. B
	CLUBS, ETC. BELONGED TO	WHETHER HELPS TO RUN
Type of club, etc.		
Do not belong to any club, society, association of group	0→GO TO QN. 19	
Professional bodies and associations connected with your work— EXCLUDING Staff Associations	1	1
Other associations connected with your work e.g. Staff associations; sick clubs or other benevolent clubs to help workmates; social or sports clubs connected with your work	2	2
Public bodies or committees (e.g. membership of a public or statutory committee for National Savings, hospital management, etc.; membership of a board of governors for a school, hospital, etc.).....	3	3
Associations connected with education and training (e.g. Evening Institutes; Workers Educational Association; Scouts; Guides; Cadet forces; Boys Brigade; Red Cross; St. John's Ambulance; Civil Defence; Territorials)	4	4
Associations connected with the Church or other religious groups (e.g. church council; missionary society; church groups or clubs, including social or sports club connected with the church)	5	5
Associations connected with welfare—apart from those already mentioned (e.g. charitable or voluntary welfare associations such as the National Council for Social Service, the W.V.S., etc.)	6	6
Civic groups (e.g. tenants or ratepayers associations; parent-teacher associations; residents clubs; community centres)	7	7
Any other club, society, association or group connected with leisure or social activities (e.g. sports teams or clubs—football, cricket, etc.; games clubs—bingo, bridge, darts, etc.; dance clubs; clubs for gardening, hobbies or pets; music, drama or art clubs; motoring associations; British Legion; Women's Institute; working mens' clubs; youth clubs).....	8	8
Any other types of club, society, association or group...	9	9

NOW PLEASE GO TO QN. 19

NOTE IN QNS. 19, 20 & 21 BELOW, WE ONLY NEED TO KNOW ABOUT THE NEWSPAPERS & PERIODICALS LISTED—WE KNOW THERE ARE OTHERS YOU MAY READ.

QN. 19 Below are listed some daily morning newspapers. For each one, please indicate by ringing the appropriate code the number of issues you see in an average week these days. FOR ANY PAPERS WHICH YOU DO NOT SEE, PLEASE RING THE 0 ON THE APPROPRIATE LINE—DO NOT LEAVE IT BLANK.

GO TO QN. 20

	Number of issues seen in an average week						
Daily Mirror	6	5	4	3	2	1	0
Daily Express	6	5	4	3	2	1	0
Daily Mail	6	5	4	3	2	1	0
Daily Telegraph	6	5	4	3	2	1	0
Daily Sketch	6	5	4	3	2	1	0
Guardian	6	5	4	3	2	1	0
Times	6	5	4	3	2	1	0
Sun	6	5	4	3	2	1	0

QN. 20 Below are listed some Sunday newspapers. For each one, please indicate by ringing the appropriate code the number of issues you see in an average month these days. FOR ANY PAPERS WHICH YOU DO NOT SEE, PLEASE RING THE 0 ON THE APPROPRIATE LINE—DO NOT LEAVE IT BLANK.

GO TO QN.21

	Number of issues seen in an average month				
News of the World	4	3	2	1	0
People	4	3	2	1	0
Sunday Mirror	4	3	2	1	0
Sunday Express	4	3	2	1	0
Sunday Times	4	3	2	1	0
Observer	4	3	2	1	0
Sunday Telegraph	4	3	2	1	0
Sunday Citizen	4	3	2	1	0

QN. 21 Do you usually read any of the following periodicals? IF YOU DO NOT USUALLY READ ANY OF THESE, PLEASE RING THE 0 AT THE BOTTOM OF THE COLUMN

	Economist	1
	Listener	2
RING THE NUMBER AGAINST	New Society	3
	Spectator	4
EACH PERIODICAL	Statesman	5
	Statist	6
YOU USUALLY READ	Times Educational Supplement	7
	Times Literary Supplement	8
	Does not usually read any of the above periodicals	0

THE COMMITTEE ARE VERY GRATEFUL TO YOU FOR COMPLETING THIS QUESTIONNAIRE. PLEASE SEND IT BACK AFTER FILLING IN THE DATE OF DESPATCH ON THE FRONT PAGE.



(01)



(6)



(8)



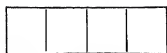
(7)



(9)



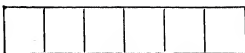
(5)



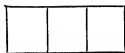
(4)



(3)



(2)



(1)

Design of the sample

A sample of between 210 and 220 for each of the 26 groups was selected on a random basis from the Central Staff Record except where the numbers of any group were too small (e.g. for female members of the administrative class a census was taken). Where information could be collected by consulting the records alone, the Central Staff Record provided the data and tables; but all material based on answers to the questionnaire was processed by the Government Social Survey Unit. There is a small discrepancy between the statistics supplied by the two sources, for two reasons. Whereas all the selected Staff Record cards could be consulted, a small proportion of each group did not return the questionnaire, or sent back unusable copies. Also the cards can be up to a year out of date and do not record the very recent movement of a minority of civil servants between classes, or between grades within classes, or in and out of the Civil Service altogether. A few informants will have been in one sample group according to information from the Staff Record cards but have answered the questionnaire as members of another sample group. However, a comparison of the figures for tables provided by both the Central Staff Record and the Government Social Survey Unit showed only very small and insignificant differences.

Sample group	Total number in Civil Service ¹ (a)	Sample number supplied by the C.S.R. (b)	Sampling fraction (b/a)	Sample used by the G.S.S.U. (i.e. C.S.R. sample minus number of unusable returns plus transfers since last C.S.R. count)
Male Upper Administrative	1,023	214	(1/4.78)	211
Female Upper Administrative	52	52	(1/1.00)	50
Male Lower Administrative	1,075	215	(1/5.00)	196
Female Lower Administrative	128	128	(1/1.00)	114
Male Upper Executive	404	213	(1/1.90)	194
Male Middle Executive	3,893	217	(1/17.85)	210
Female Middle Executive	413	213	(1/1.94)	200
Male Lower Executive	28,653	215	(1/133.27)	223
Female Lower Executive	7,922	215	(1/36.80)	194
Male Clerical	34,378	215	(1/159.90)	183
Female Clerical	27,505	215	(1/127.93)	183
Male Upper Legal	179	179	(1/1.00)	172
Male Lower Legal	499	215	(1/2.32)	179
Male Upper Professional Works Group (Arch. & Surv.)	160	160	(1/1.00)	138
Male Lower Professional Works Group (Arch. & Surv.)	1,761	215	(1/8.19)	201
Male Upper Professional Works Group (Eng.)	159	159	(1/1.00)	135
Male Lower Professional Works Group (Eng.)	1,447	215	(1/6.73)	192
Male Technical Works	12,900	215	(1/60.00)	206
Male Draughtsman	7,525	215	(1/35.00)	196
Male Upper Scientific	752	215	(1/3.50)	206
Male Lower Scientific	2,367	215	(1/11.01)	197
Male Upper Experimental	1,698	212	(1/8.01)	196
Male Lower Experimental	4,143	215	(1/19.27)	206
Female Lower Experimental	458	215	(1/2.13)	186
Male Scientific Assistant	2,344	215	(1/10.90)	184
Female Scientific Assistant	469	215	(1/2.18)	168

¹ Figures are for January, 1967 (the month in which most of the questionnaires were returned). Temporary staff are excluded. The slight discrepancy between these numbers, those of Table 1.2 and on pp. 3-6 of Chapter I occur because of the different dates at which the counts were made.

The response rate

Of the 5,187 questionnaires sent out 4,722 (91%) were actually used for analysis. The remaining 465 schedules were not used for the reasons summarised below:

Resigned from the Civil Service	99
Retired from the Civil Service	86
Not returned at all	85
Illegible	46
Refusals	32
Not traced by establishment officer	27
Returned blank. No explanations. (Presumably refusals)	23
Serving abroad	16
Died	15
Ineligible (not in Civil Service)	10
Other ¹	26
Total	465

Excluding unused schedules sent to civil servants who were ineligible for the sample survey (for example, those who had retired, resigned, died, who were serving abroad, etc.) the effective response rate was 96%. The total number of blank schedules were too evenly distributed over all the sample groups, and too small a proportion of any particular sample group for us to believe that the few unusable questionnaires yielded data unrepresentative of any of the twenty-six samples.

Weighted tables

Figures weighted to comprise all the individual sample groups within a Civil Service class were also supplied by the Government Social Survey Unit. Special weighted figures for the separate sexes were provided for tables involving marital status as one of the variables. The weight given to each respondent was the sampling fraction of the sample group the Central Staff Record attributed to him. Each member of a given sample group has been given equal weight.

For reasons outlined earlier in this annex a few civil servants in one sample group according to Central Staff Record information will have answered the questionnaire as members of a different sample group.

Occasionally the percentage in the weighted "all" column of a table will be outside the range of the percentages in the columns which are weighted and added to make up the "all" column. This is because all members of an individual sample group are unweighted in tabulations on that group alone, but are given their correct weight in tabulations of the "all" column.

The following table sets out the weighting distribution of each class.

¹ Sick leave; on loan to other agencies; living abroad; on special leave; wrongly sampled; completed by wrong person.

Administrative class:	201	weight	4.78
	201	weight	5.00
	163	weight	1.00
	3	weight	1.90
	1	weight	17.85
	1	weight	1.94
	1	weight	2.32
	(N) 571	Base No.	2,157
Upper and middle executive class:	210	weight	17.85
	190	weight	1.90
	198	weight	1.94
	2	weight	5.00
	2	weight	133.30
	2	weight	36.80
	(N) 604	Base No.	4,844
Lower executive class:	201	weight	133.30
	187	weight	36.80
	17	weight	159.90
	5	weight	127.93
	3	weight	54.29
	1	weight	17.85
	1	weight	1.90
	1	weight	1.94
	1	weight	2.13
	(N) 417	Base No.	37,220
Clerical class:	182	weight	159.90
	180	weight	127.93
	2	weight	36.80
	1	weight	133.30
	1	weight	2.18
	(N) 366	Base No.	52,338
Legal class:	190	weight	2.32
	161	weight	1.00
	(N) 351	Base No.	602
Works group of professional classes:	196	weight	8.19
	190	weight	6.73
	143	weight	1.00
	137	weight	1.00
	(N) 666	Base No.	3,164
Technical works class:	weighted figures not used in survey		
Draughtsman class:	weighted figures not used in survey		
Scientific officer class:	200	weight	11.01
	200	weight	3.50
	1	weight	1.00
	1	weight	10.90
	1	weight	19.27
	(N) 403	Base No.	2,933

Annex II

Sampling Error and Tests of Significance

Sampling error

Many of the figures quoted in the text are subject to sampling error, since only for a minority of the sampled groups was a complete census conducted.

Significance testing

The aim of the survey is partly descriptive and partly for the investigation of causes of differences between various subsets of the whole population. In so far as it is descriptive of the population, significance tests have a very useful role to play in deciding to what extent the sample is likely to be representative of the population. For explanation of causes, significance testing becomes more difficult, and its implications must be thought about more carefully.

There has not been enough time to give standard errors for all descriptive statistics in tables, even if this were thought helpful. The sampling scheme was too complicated. Nevertheless, all the work has been checked to see that the tables have some validity for their use in the text. A chart for any individual significance test the reader may care to try is included below. Its application is limited by the many different sampling fractions of the survey leading to weighted tables for which it is not appropriate.

Statements in the text

There will be found many statements in the text like "The *Daily Telegraph* is the most popular daily". Such statements have for the most part been checked, and found to be significant at the 10% level, and often at the 5% level. Exceptions are explicitly mentioned in footnotes. In suitable cases use was made of multiple comparison techniques.

It has not been possible to carry out very deep significance tests of some of the causal hypotheses thought less important. As mentioned before, the testing of these is a difficult matter. Important causal hypotheses have been checked as far as time allowed. There is a large amount of personal judgment involved in deciding what is the appropriate test, and some variation of taste from reader to reader may well enable one to find fault with conclusions reached as to the significance or non-significance of a result. The main aim here has not been to polish to a high degree the statistical analysis of the data, but to eliminate gross mistakes.

Chart for significance tests¹

The nomogram may be used for three different problems. For each of these, three vertical scales are required. One scale is used for sample size, one for a percentage, and a central one for providing a solution.

¹ From S. Rosenbaum, "A significance chart for percentages", *Applied Statistics*, Vol. VIII, No. 1, March, 1959 (reproduced by permission of the editor).

Confidence limits for a percentage—U Scales

If one wishes to estimate the confidence limits applying to a particular percentage, one first looks up the right-hand scale m for the size of the sample, then the left-hand scale p for the percentage involved and then joins the two with a ruler; this cuts the central scale at the 95% and 99% confidence limits for p .

As an example, if the percentage is 30% and the sample size 400, the ruler cuts the central scale at 4.5 (for the 95% limits) and 6.0 (for the 99% limits). Thus the 95% limits are $30 \pm 4\frac{1}{2}\%$, and the 99% limits $30 \pm 6\%$.

Significance of the difference between two percentages from different populations—V Scales

Suppose we wish to compare two populations, from which samples of size m and n have been selected, and found to have percentages p and q respectively with the characteristic of interest. We look up in the left-hand scale the value $N=m+n$, for the combined sample, and in the right-hand scale the value $P=p+q$ for the sum of the two percentages; we then join the two points with a ruler, which cuts the central scale at the 5% and 1% significance levels for the difference $p-q$.

As an example, let us suppose that we have two samples (each from a different sample group) sized 110 and 120. In the first sample 15% have the characteristic in question, in the second 10%. Is the difference significant? Join the points $N=230$ and $P=25$, and find that the ruler cuts the central scale at 8.5 (for the 5% level). Thus the difference of 5% is not significant at this level.

The nomogram should be used for this problem only where the sample sizes differ by a ratio of 3:1 or less. Where the ratio between them is greater than this, the more refined methods available in the textbooks should be applied.

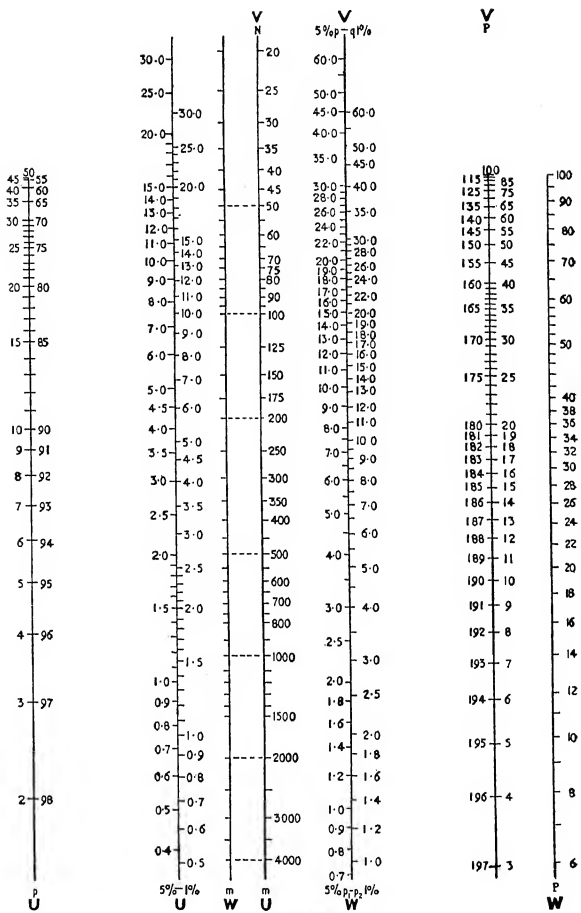
Significance of the difference between two proportions from the same mixed population—W Scales

The third use of the nomogram arises when one wishes to test whether, in a given mixed population, one characteristic is more common than another. An example would be the question whether, within the sample for a certain university group, the percentage of staff with one type of degree is higher than that with another (no member being classified in both categories).

We locate the size of sample m in the left-hand scale, and the sum of the percentages $P=p_1+p_2$ in the right-hand scale. The two points are joined by a ruler, and this cuts the central scale at 5% and 1% significance levels for the difference p_1-p_2 . As an example, suppose the sample size is 300, and the percentages with the different characteristics are 44% and 34%. The line joining $m=300$ and $P=78$ meets the middle scale at a point just below 10% (for the 5% level), so that the observed difference is significant at this level; it is not significant at the 1% level.

The nomogram gives only approximate confidence limits and significance tests. The closeness of the markings on the scales gives an indication of the accuracy one can expect, but over this there are inaccuracies due to approximations in the construction of the chart. One should not use the chart for percentages very near 0 or 100, or for sample numbers smaller than 20. It is not very good for tests on weighted tables.

Significance chart for percentages



Printed in England for Her Majesty's Stationery Office
By McCorquodale and Company Limited, London.

HM 2553 Dd. 154007 K32. 9/69

THE CIVIL SERVICE

CORRECTION

Chapter III: The Administrative Class

Since the survey went to press, errors have been discovered in the school breakdown (supplied by the Civil Service Commission) of Method I and Method II candidates for the period 1964-67. In the case of Method II candidates the error is important. The original figures supplied by the Civil Service Commission suggested that for the period 1964-67 there was a significant increase in the proportion of successful Method II candidates coming from LEA schools (as compared with the period 1948-63). Their corrected figures show this increase to be substantially less than had been believed when the conclusions in Chapter XIII were drafted. The correct figures, with the originals as supplied for the survey shown in brackets, are given below:

	1964	1965	1966	1967
LEA etc. schools	17 (23)	28 (24)	35 (40)	44 (58)
Public, direct grant and other fee paying schools	47 (41)	64 (68)	59 (54)	84 (71)
Schools abroad	1 (1)	1 (1)	2 (2)	2 (1)
	65	93	96	130

Although the error affects some of the text and the accompanying tables on pages 74-78 of Chapter III and pages 402 and 404-5 of Chapter XIII, it does not disturb the basic argument.

Further details of the effect on the text and tables can be supplied, on request, by the Civil Service Commission, Civil Service Department, 23 Savile Row, W1.

CIVIL SERVICE DEPARTMENT

September, 1969

LONDON: HER MAJESTY'S STATIONERY OFFICE